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VOL. II.—4TH YEAR. SYDNEY: SATURDAY, AUGUST 11, 1917. No. 6.

LOCALIZATION IN RADIOLOGY.

By C. W. Joy,
Assistant Radiologist, No. 5 Australian General Hospital, Melbourne.

I.—Localization.

Ever since the discovery of the Röntgen radiation, means have been devised for applying it to the location of foreign objects in the human body. Since the beginning of the war many such methods have been proposed and tried, and their varying degrees of accuracy ascertained. Some are merely approximate in the information they supply, whilst others, if handled with a full knowledge of the various sources of error tending to vitiate the results, are capable of giving data of a comparatively high degree of accuracy.

The general problem of localization is a purely physical one, as it consists entirely in fixing the relative position of a point in space with regard to three planes mutually at right angles; this being so, tried and approved methods should be applied to its solution.

The science of surveying has since its inception been concerned with exactly similar problems, and the exactness which its methods have attained leaves no doubt that the application of them to the radiological problem would result in an enhanced degree of reliability.

A comparison may now conveniently be made of the surveying and radiological problems. In the former the magnitude of the linear measurements is so great that a small error bears such a proportion to the whole as to be negligible; in the latter the smallest inaccuracy forms an appreciable percentage of the measurements.

Again, the surveyor has to deal mainly with fixed objects, whilst the radiologist has the greatest difficulty in immobilizing his subjects; and, further, any indication that the radiologist can obtain of the position of the body which he is attempting to fix, depends for its excellence upon the many and varying factors controlling his source of radiation.

A summary may now be made of the conditions that must obtain before accurate localization can be attempted.

1. A reference system of three planes mutually at right angles and means for measuring co-ordinates in these planes.
2. A means for orthographically projecting the shadow of the foreign body on these planes.
3. Absolute relative immobility of the parts of the system whilst the measurements are being made, and exact reproduction of this relation at time of removal of foreign body.

How close to these ideal conditions can we approach with the materials at our disposal?

For the first condition the fluorescent screen in fluoroscopy and the sensitized plate in radiography supply in any one case not more than two of the three planes postulated. In a good many instances the source of radiation is caused to move in such a manner as to fix the remaining planes, and as these latter are more or less imaginary, they have to be transferred to paper from measurements made upon the tube stand itself; therefore their accuracy depends to a large extent upon the precision of the movements of the tube stand and upon its graduation. Obviously for the best work the tube stand should be an instrument of precision, with all its movements exactly at right angles, with means for reading accurately the magnitude and direction of these movements.

The tube-stand may be compared with the theodolite, and should possess its ease of adjustment, though it does not require its fineness of graduation.

The second condition is not easy to fulfil, as it requires that the central ray from the anticathode shall pass through the foreign body normal to the surface upon which the projection is made. The failure to recognize this fact has been the most fruitful source of inaccuracy in a large number of localizations.

To illustrate this reference will now be made to Fig. 1. B. is the body of the subject and F. the

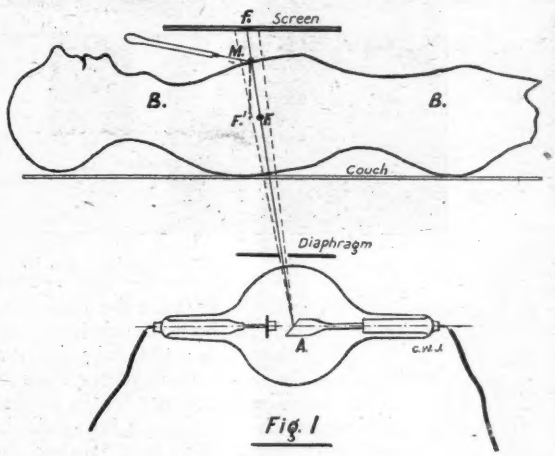

Fig. 1

foreign substance buried therein. A. represents the anticathode and S. the fluorescent screen. The line A.f. is the direction of the ray which throws the shadow f. of the body F. upon the screen. It has been, and still is, common practice to place an opaque marker M. so that its shadow will coincide with the shadow of F. upon the screen; a mark is then placed upon the skin at this point and the surgeon instructed that he will find the foreign body

below this mark. From the direction of the line M.F.[1] it will be seen that he will in all probability miss it. To avoid the possibility of this error an instrument partaking greatly of the principles of the surveyor's alidade was introduced into the localization work of the 5th Australian General Hospital in the early part of 1916.

A reference to the Fig. 2 will help to make things clear. T. is the tube (Coolidge) and B. the protective tube-box. R. represents the line of the central ray, which passes through two lead rings L.L. These rings are held by supports S.S., which are attached to and slide along frame F. by means of T-pieces P.

The lead rings are so adjusted that the central and normal ray from the anticathode passes through

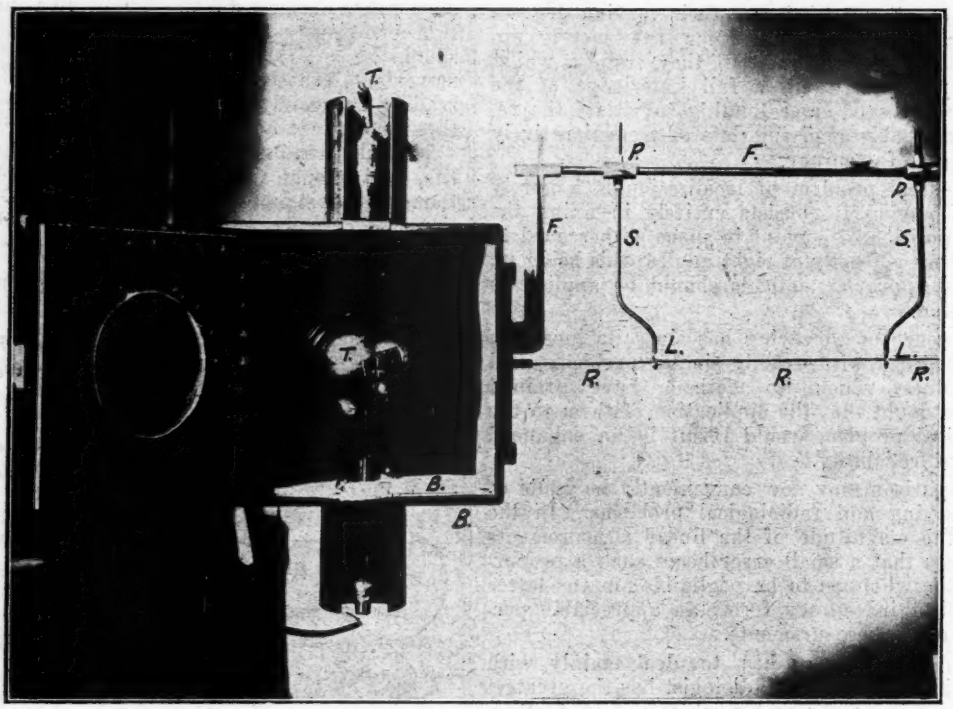

Fig. II.

their centres. In using the apparatus the ring next to the tube lies on one side of the patient's body, the further ring on the other side; the tube is now moved, together with the localizer, until the shadow of the foreign body lies directly in the centre of that of the concentric rings; then there can be no doubt that the foreign body lies on the line joining the centres of these circles.

Figs. 3, 4 and 5 will serve to make the matter clear. Not only does this eliminate the error referred to above, but the framework of the apparatus fixes the plane through the body in which the fragment lies.

Coming now to condition three, it is obvious that, in the first instance, the tube stand should be perfectly stable and, after movement, capable of being rigidly clamped in any necessary position.

It is the human body that presents the greatest difficulty, and for work in the thorax the most powerful apparatus is needed to cut down the time of exposure as much as possible. If a foreign body is causing lung symptoms, a patient may not be able to hold his breath for more than seven to ten seconds, and very little detail can be obtained (without the use of intensifying screens) in this time, unless a high intensity of radiation be used. Perhaps the most difficult region under this heading is the subphrenic area, which moves during respiration. Here first-class radiography requires for the above purpose current intensities as high as 100 *milliampères*, with a potential across the tube of some 70,000 volts.

To comply with the second half of the third condition, it is necessary to localize in the position that the patient will occupy on the operating table, and all information regarding the foreign bodies should be obtained in this position, that is, the tube, and not the patient, should be moved if radiographs in two planes be required. For fixation of the limbs clamping may be resorted to, but no universally useful clamp has yet been evolved that will surmount the difficulty arising from disabilities of joints caused through gun-shot wounds.

To fix a distance of any foreign body from any plane of reference that may have been chosen upon the surface of the subject, the use can be made of the various triangulation methods extant, care being taken to calculate the position of the focal spot on the anticathode, as this does not always lie on the long axis of the tube.

The whole of the necessary data having been obtained, how can it be used to give the greatest amount of information of which it is capable?

To do this we employ the method of cross sections familiar to all who have a knowledge of engineering. But to employ sections that have been cut at random through the human body is worse than useless; it is misleading.

The sections must be cut with direct reference to fixed superficial landmarks. Such sections have been cut by Professor Berry, of the University of Melbourne, and portion of them published in his "Clinical Atlas of Sectional and Topographical Anatomy." In this excellent work use had been made of Addison's lines in fixing the planes of the sections, and the traces of the sagittal and lateral planes have been fixed upon and reproduced with the cross-sections. By this means we have the whole of the trunk sections correlated with the ventral surface; and these sagittal, horizontal and lateral planes form the ultimate three surfaces of reference postulated above.

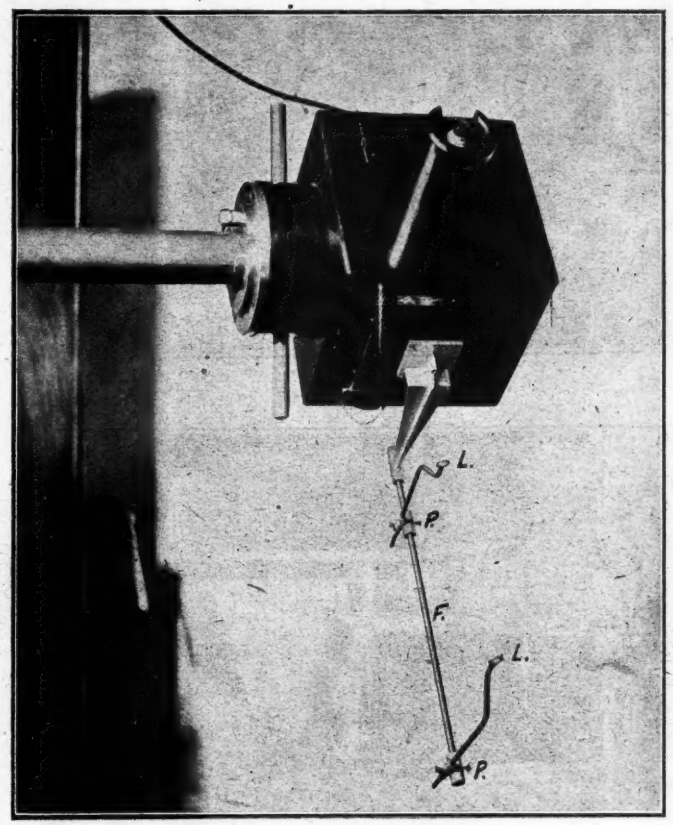

Fig. III.

By knowing the cross-section in which the foreign body lies, and its distance from the lateral and sagittal planes, it can be plotted upon the cross-section in the exact position it occupies in the normal body. This will not only determine its relation to the viscera, but will give the surgeon a very good idea indeed of the tissues involved in its removal. It is not too much to say that unless the whole of the foregoing has been carried out, the radiologist has failed to do the best for the surgeon and incidentally for the patient. Professor Berry's correlated sectional anatomy and the urgently necessary extension of it to the neck and limbs should unquestionably be in every military hospital where radiological work is carried on.

A beginning to apply cross-sectional anatomy to localization was made at No. 5 Australian General Hospital during the early part of 1916, and the accompanying section will show how clearly the relation of the foreign body to the parts of the system is demonstrated.

But this is not all, for, given the point of entry of the projectile, and its final position, and assuming that the projectile followed a straight line course (which we found to be the case, except where bone had been struck at a glancing angle), we are in a position to state very accurately what tissues have been injured in its course.

From the above it will be seen that efficient scientific personnel, trained in mathematical and physical spheres, is vitally necessary, and is of equal importance with the medical side in the interpretation of the data supplied by the rays.

II.—Equipment.

It will thus be seen that for the best work the X-ray establishment of military hospitals should be placed on a sound basis, the necessary branches being as follows:—

Operating Room Equipment.

1. A high-tension generator, capable of supplying 100 *milliampères*, at a potential of 100,000 volts. This should be capable of fine adjustment.

2. Three Cooliidge tubes and heating transformer.

3. A well protected tube-stand, embodying the features of ease of adjustment, accuracy of movement and rigidity, with all accessories.

4. A wide, well protected screening couch with easily made adjustments and absence of under-gear.

5. A wide plain couch, absolutely free underneath and running on rubber tyred castors.

6. Instruments to insure orthography of projection.

7. An efficient clamp for immobilizing limbs.

8. An efficient changer for instantaneous radiographs.

9. The compass of Hertz for head work and Sweet's eye localizer.

The operating room should have an area of not less than 40 square metres, should have an efficient means of darkening, ample ventilation and a light lock opening into the viewing room. The room

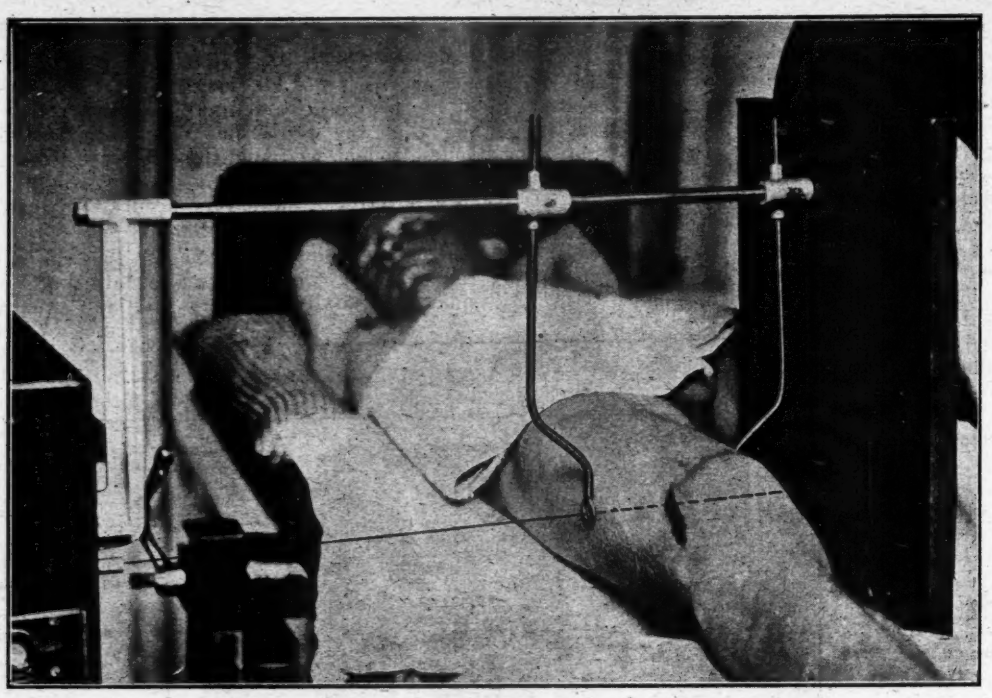

Fig. IV.

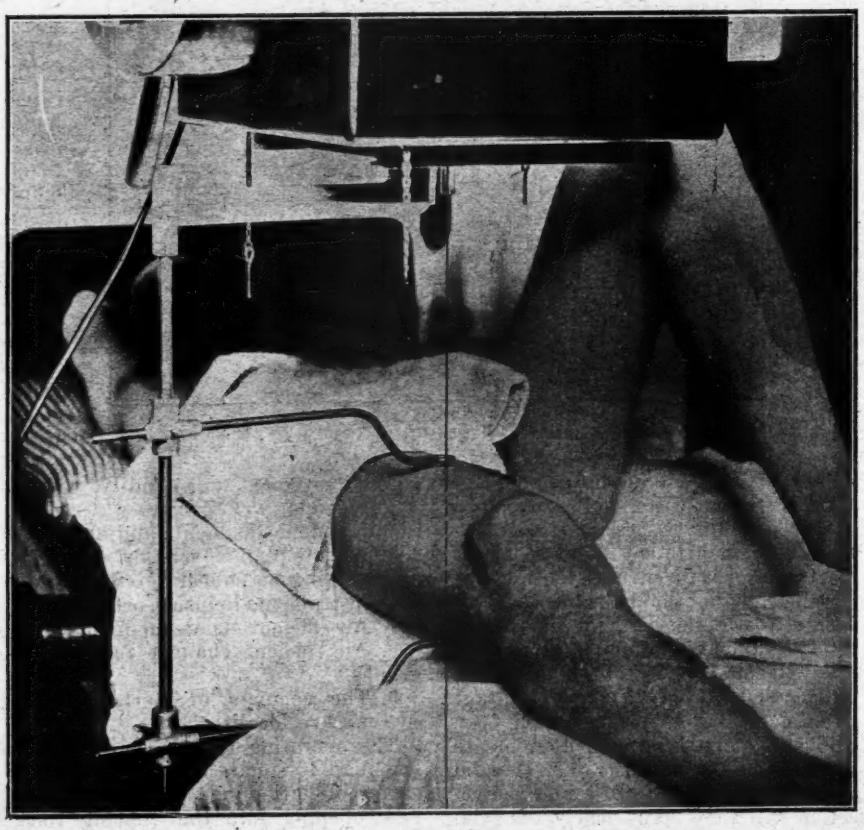

Fig. V.

should have means for warming in winter, as not only does this conduce to stillness in the patient, but by keeping the air dry, helps the operation of the tube.

Dark Room.

This should be a room with floor area of at least 14 square metres, and should have two rows of shelves 30 cm. wide around three sides. The troughs require to be large, though not deep, and should possess a wooden grid. It is not advisable to have sloping side shelves to the troughs.

The floor should be of some cementitious material, and should be smooth and impervious to moisture.

Artificial lighting should be used throughout, but provision ought to be made for a standby natural light, and also for sunning and ventilation.

For viewing, two lanterns placed side by side are needed, with the necessary reversible frames. The illumination requires 100 candle-power tungsten filament lamps, with dimming controls.

A good Wheatstone stereoscope is absolutely essential, and should have every adjustment and the best illumination.

As the reporting and filing will be done in this room, sufficient office furniture for this should be provided.

The room should be easily darkened, and access had to it without traversing the operating room.

The size of this room will depend upon the provision made for filing.

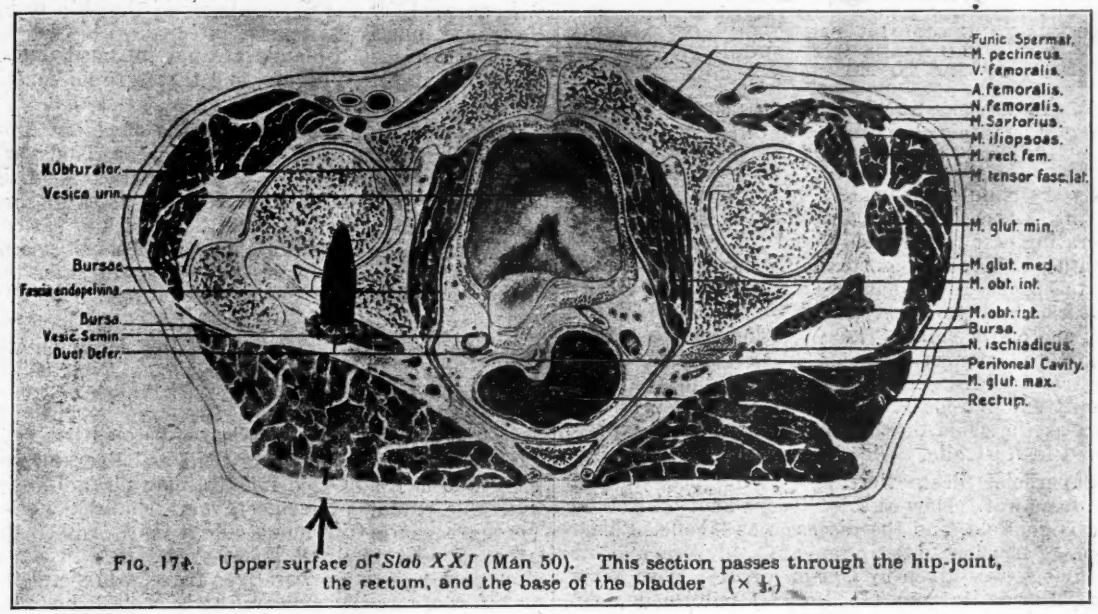

FIG. 174. Upper surface of *Slab XXI* (Man 50). This section passes through the hip-joint, the rectum, and the base of the bladder (× ½.)

Fig. VI.

The troughs need both hot and cold water at constant temperature, and provision is needed for storing ice in summer.

This room should be so situated and designed that it will not respond readily to outside temperature change.

An electric fan is necessary for drying plates rapidly.

A double set of all sizes of intensifying screens and casettes is absolutely necessary, and not less than four developing trays of each size.

The dark room ought to open into the viewing room through an efficient light lock.

Viewing Room.

The viewing and filing of plates can be conveniently carried out in the one room, the plates being filed vertically and indexed both as to size, number and name of patient, through the medium of the card system.

Chart Room.

The necessity for this room is introduced by the use of cross-sections in the localization, and here should be kept the sections for use in plotting. This room should be supplied with the necessary drawing materials, and should be well lit. It is advisable to carry out all calculations graphically, and for this purpose squared paper is necessary.

Waiting and Dressing Room.

A waiting room is indispensable for the removal of the outer bandages and the subsequent redressing, without blocking the main passages with stretchers. Provision can be made in this room for examining-suits, in which buttons are replaced by tapes.

Motor Generator Room.

If a motor generator be required, it should have a capacity 50% in excess of any load likely to be taken from it. The housing should give one metre

clear space all round the machine, which should be mounted on a concrete monolith with ventilating passages cored in it. The very best provision should be made to prevent high-tension surges reaching the armature, and the subsequent burning out of the latter.

Lifting gear is also needed over the machine for the moving of heavy parts. The voltage control should be by means of a field rheostat manipulated from the operating room.

How far short of the above establishments do the Australian military hospitals fall? By just so much is the X-ray, "the eye of the hospital," hampered in doing or in attempting to do the work which is of incalculable assistance to the physicians and surgeons, and through them to our returned men.

OBSERVATIONS ON THE PATHOLOGY OF BARCOO ROT (VELD SORE), WITH SUGGESTIONS AS TO TREATMENT.

By Lieutenant-Colonel C. J. Martin, F.R.S.,
Australian Army Medical Corps,
Pathologist, No. 3 Australian General Hospital.

By the middle of summer, 1916, a number of men of the Anzac Mounted Division, which has been operating east of the Suez Canal for upwards of — months, suffered from spreading superficial ulcers on the backs of the hands, extensor surface of the forearms and, to a less extent, on the dorsa of the feet and on the shins. The ulceration resembles that met with amongst bushmen in the backblocks of Australia (during the dry season), and is known locally as "Barcoo rot." It was recognized by the men as the same disease they had seen or experienced in Australia.

Superficial ulcers were also troublesome during the Boer war. They affected troops kept on trek on the High Veld, and the disease was labelled "Veld sore." A short description of Veld sore and its pathology was given by Ogston (1901). Two years later Bishop-Harman (1903, 1904) published a detailed study of Veld sore, and I gather from his description that "Veld sore" and "Barcoo rot" are closely allied, if not identical diseases. According to Harman, the disease affected Boers and British alike whilst campaigning, but natives were free from it. The Boers did not suffer whilst dwelling on their farms. Harman (*loc. cit.*, p. 8 and 9) is satisfied from the epidemiological data that the restricted range in diet during the operations on the Veld is an essential factor in bringing about the condition.

Dolbey (1901) concludes from his experience that troops were not liable to "Veld sore" until they had been at least three months in the country. Life during the dry weather in the Australian backblocks and campaigning on the high veld or the Sinai desert present conditions some of which are not unlike. In all three cases water for washing is minimal; prolonged subsistence upon bread, biscuit and salt and tinned meat, with lack of fresh vegetables, is the rule. Further, appropriate dressing of the sores in the early stages is difficult or impossible whilst the patient continues his occupation. Like "Veld sore," "Barcoo rot" is difficult to cure in the above conditions, but readily yields to treatment when the patient comes into one of the towns. To what extent this is to be attributed to facilities for greater cleanliness, appropriate surgical dressing or to dietetic improvements is uncertain.

Description of Barcoo Rot.

The patient may remember abrading the skin, but whether or not, the first sign is usually a bleb or blister containing thin, watery pus and surrounded by an area of slightly inflamed skin. The blister may be the size of a sixpence, or even larger, but before it reaches this size it is generally broken. The denuded surface shows little tendency to heal, but slowly extends at its margins, at the same time deepening until there are no more epithelial structures left. The ulcer, however, remains shallow, and it is unusual for the fibrous layer of the skin to be destroyed, unless it becomes infected with virulent staphylococci. The glands are not inflamed unless secondary infection occurs, and there are no constitutional symptoms.

When healing has occurred, areas of glossy skin, more or less denuded of hairs and sweat glands, are left. Cicatrization does not occur unless the true skin is destroyed. Infection of fresh areas of skin in the neighbourhood is usual, so that the patient has several ulcers of different ages. The disease in its minor forms is extremely annoying, and when the ulcers have become large, incapacitating.

The symptoms and pathological findings have no resemblance to the slowly evolving leishmaniosis known under the names of *Bouton du Nil*, *Clou de Biskra*, *Bouton du Caire*, etc.

Observation on the Pathology of Barcoo Rot.

On a visit to an outlying field ambulance I was shown 20 men admitted for obstinate ulcers of considerable extent. The ulcers were shallow, mostly on the backs of the hands and wrists, that is, the area exposed to small injuries and rich in hairs. The smooth surfaces were free from ulcers, and the progress of an ulcer appeared to be inhibited as soon as it extended to a hairless portion of skin.

It seemed advisable to examine the state of the hair follicles, both within and around the ulcers, and I plucked a number of both from the base of the ulcer and from the reddened, slightly swollen skin at the margin; many of the hairs were loose. I wrapped the hairs in paper moistened with 70% glycerine for transport. On my return to the laboratory the hairs were stained by Gram's method and counter-stained very slightly with weak fuchsin, dehydrated and examined in clove oil or balsam. In all of the hairs withdrawn from the base of the ulcers, and in many from the inflamed margin, Gram-positive microbes were present in the hair sheath. They were mostly cocci, but in the hairs from three of the cases bacilli, which at the time I took to be diphtheroids, were also present. The infection extended usually to the lower end of the hair follicle.

Some of these cases were subsequently removed to No. 3 Australian General Hospital, Cairo, for observation and study. They were placed under the care of my comrade, Captain Maclure, to whom I am much indebted for his kind co-operation.

Infection of the hair follicles was confirmed by microscopical examination of fresh material and cultures from the bases of the removed hairs and from the contents of early blebs were made upon blood agar and ordinary agar. *Staphylococcus albus* was the predominating organism, but some *citreus* and a few *aureus* were also present. In one case a diphtheroid was abundant. This proved to be *bacillus diphtheriae*,[1] but I did not discover this until some time afterwards. Diphtheroids are not uncommon in the lesions of the skin, such as ulcers, vaccinia, pustules, impetigo[2] and eczema, and I regard it as a chance concomitant of the staphylococcal infection, and did not investigate it further at the time. The case differed in no obvious way from the others, and there were no constitutional symptoms at the time.

The microbial infection of the hair follicles appeared to be confined to the connective tissue sheaths, except in very badly affected hairs, in which the base was disorganized and the layers of the root sheaths unrecognizable.

The pus from the early blisters before they were broken afforded only growths of staphylococci. I generally found that there was a hair, often a very small one, passing through them, and the follicle of the hair was invariably infected with staphylococci.

The coci cultivated were, as mentioned above, mostly varieties of *staphylococcus albus*, with a few *aureus* and *citreus*.

Their virulence is presumably low, for in uncomplicated cases there is no tendency to invade the true skin, and no involvement of the lymph glands occurs.

A few experiments were made upon the bio-chemical characters and pathogenicity of some of the cocci isolated. Six white staphylococci colonies, derived from four patients, were examined as to their action on milk and gelatine and their fermentation of lactose and mannite. They all clotted milk and liquefied gelatine with varying rapidity and fermented lactose. None fermented mannite. They were not hæmolytic for human blood, as tested by Eijkmann's agar plate method. They appear, therefore, to correspond to Welch's *staphylococcus epidermidi albus*, as defined by Gordon (1906).

Two cultures of *staphylococcus aureus* and two of *citreus* from hair follicles were tested in the same way, and fermented mannite. I could not make a number of experiments on animals, but two rabbits injected intravenously with 2 c.cm. of a broth culture from the *aureus* colonies were not made manifestly ill.

My observations on the bacteriology of "Barcoo rot" are in general accord with those of Ogston (1901) and Harman (1904) upon "Veld sore." Ogston and Harman, however, make no mention of any infection of the hair follicles. Ogston saw only Gram-positive cocci in fluid from the edge of ulcers. Harman cultivated only staphylococci from the unbroken vesicles. These gave the cultural characters of *staphylococcus pyogenes aureus*, but grew rather more abundantly on culture media than a virulent strain with which they were compared. They were not virulent for rabbits. Harman was much impressed by the resistance to heat, drying and the action of corrosive sublimate possessed by his cultures; but this was not, I think, greater than has been met with in some strains of staphylococci.

The epidemiology of "Veld sore" was carefully studied by Harman, but he could find no indication that the infection spread from one to another among the troops, and "Barcoo rot" affects men living in solitude. Nor does either disease seem to be associated with particular occupations. It would seem probable that "Barcoo rot" and possibly "Veld sore" too, is due to the infection of the epidermal structures with staphylococci of low virulence, such as abound upon the skin. In "Barcoo rot" the infection of hair follicles is apparently the common way in which it begins, and the usual manner in which it spreads at the margin of the ulcer.

Harman's view of the pathology of "Veld sore" I take to be that, under ordinary nutritive conditions the skin, cocci of low virulence are not able to "make good" against local defences, but in the case of men too long uopn a restricted diet, the defence is weakened and they are able to infect the epidermal structures, but not the true skin. He regards it, in fact, as a minor scorbutic manifestation. This may well be, but improper dressing and neglect of the sores also play an important part, for I have seen them heal up rapidly after the removal of the hairs (see below) and appropriate dressing when no improvement in diet was possible. The fact recorded by Harman that the African natives did not suffer, whereas the Boars did, does, however, suggest that lack of washing and simple surgical dressing is alone an inadequate explanation.

Treatment of Barcoo Rot.

In hospital the ulcers generally heal up slowly under any sort of wet antiseptic dressing, but are very difficult to deal with in the field. A wet dressing is unhandy when a man has to go about his business, and it is difficult or impossible to change it sufficiently frequently. Moreover, in a hot climate it soon becomes converted into a dry dressing and adheres to the ulcer.

Harman found that if the ulcers were thoroughly cleaned up, powdered with calomel and covered with cotton wool, the last being affixed by strapping, good results followed. This method is satisfactory for small ulcers, but the cleaning up must be very efficiently performed.

In view of the observations on the pathology of "Barcoo rot," described above, it seemed not unlikely that the infection of the hair follicles was largely responsible for the continuance of the ulcerative process in the centre, and its progress at the margins of the ulcer. An infected hair follicle is like a foreign body, and healing will not occur until it is either sterilized or ulcerated out. Acting upon this idea, I removed the hair or hairs traversing the early blebs from the secondary infection, and found that these healed straight away. The patients soon realized the efficacy of early removal of the hair follicles in suppressing these secondary infections, and

[1] Fatal for guinea-pigs in doses of 5 c.cm. 18 hours' broth culture in 30 hours; 1 c.cm. antitoxin protected against 2.5 c.cm.

[2] The records of the finding of diphtheroid bacilli in skin lesions are collected by Graham Smith in Chapter IX. of his book in collaboration with Nuttall, "The Bacteriology of Diphtheria," Cambridge University Press, 1908.

undertook this part of the treatment themselves. Next, working on the principle employed to restrict a bush fire, by burning an area in front of it, I attacked the larger ulcers, removing the hairs from their base, and around their margins, and was pleased to find that the ulcerative process was stayed, and healing commenced at once.

The extensive ulcers, in the floors of which no epithelial structures remain, naturally take a long time to heal; but this period Captain Maclure abbreviated by the transplantation of numerous snippets of skin from the abdomen.

References.

Austen (1901)—"Veld Sore," *British Medical Journal*, I., 486.
Berne (1901)—"Veld Sore," *British Medical Journal*, I., 1476.
Dolbey (1903)—"Veld Sore," *British Medical Journal*, I., 76.
Gordon (1906)—"Report on Bacterial Test Whereby Particles Shed from the Skin May be Detected," *Report Med. Officer, Local Gov. Board for* 1904-5, p. 387.
Guise-Moores (1901)—"Veld Sore," *British Medical Journal*, I., 1078.
Harland (1901)—"Veld Sore," *British Medical Journal*, I., 952.
Harman (1903)—"Clinical and Pathological Character of Veld Sore Prevalent Amongst Troops in South Africa" (Abstract), *Trans. Path. Soc. Lond.*, 54, 196.
Harman (1904)—"Clinical and Pathological Character of Veld Core Prevalent Amongst Troops in South Africa" (Full Paper), *Journal of Pathology*, Vol. 9, p. 1.
Ogston (1901)—"Veld Sore," *British Medical Journal*, 1, p. 951.
Pridmore (1901)—"Veld Sore," *British Medical Journal*, 1, p. 211.

Reports of Cases.

STRANGULATION OF PYLORUS.

By Colin Friend, M.B., B.S.,
Resident Surgeon, Melbourne Hospital.

E.H., æt. 45 years, married, was admitted to the Melbourne Hospital on February 20, 1917, under the care of Mr. Syme.

Three days before coming into hospital she was in her usual state of health. Whilst out for a walk in the afternoon she was suddenly seized with an attack of vomiting. No abdominal pain was present. She managed to walk home, but felt very weak, and nearly fainted on the way. She went to bed and remained there until her removal to hospital. During the following two days the vomiting became more frequent, and she was unable to keep anything in the way of nourishment, fluid or solid, in the stomach.

She had some slight pain high up in the abdomen, on the left side, on the second day of her illness; but it had not persisted.

The vomit on the third day became very dark in colour, and was very offensive.

The bowels had not been opened during the two days before admission.

The patient felt very tired and exhausted, and had practically no sleep for the two nights. There was a feeling of discomfort in the abdomen, but no pain.

She gave a past history of typhoid fever and bronchitis when quite a girl. Four years ago she was operated on for a strangulated ventral hernia.

On Examination.—A stout woman, very restless, was tossing about the bed, vomiting at intervals dark, offensive, bile-stained fluid. The tongue was coated; the pulse was 112, regular and of poor volume. The temperature was 36.7° C. (98° F.). The pupils were equal, and reacted to light. The heart-sounds were clear; the apex beat was in the fifth interspace, 14 cm. (5½ inches) from the mid-line. No abnormal signs were detected in the lungs. The respirations were 24 to the minute. The abdominal wall was fat and flabby. There was fair movement on respiration. The abdomen was somewhat distended. There was no rigidity or tenderness present, and no dulness in the flanks. The liver dulness was normal. A transverse scar of the previous operation was seen below the umbilicus.

An operation was performed, a sub-umbilical right rectus incision being made. Numerous adhesions were found, and, under one of these, a loop of small intestine, fairly tightly constricted, was found. The adhesion was divided and the intestine freed. Further search was made, and another loop of small intestine was found constricted and was freed. The whole length of the intestine was systematically examined, but no further obstruction was found, although several adhesions were separated. The abdomen was closed.

The next day the patient's temperature and pulse were normal. The vomiting had ceased. She was complaining of some epigastric pain; but it was not severe. During the afternoon the patient suddenly collapsed. Her pulse-rate became very rapid, and the skin acted freely. The vomiting commenced again, and in an hour she died.

Post-Mortem Examination on February 22, 1917.

A well-nourished woman; skin dark, fair deposit of subcutaneous fat, no œdema of extremities, post-mortem discolouration marked in dependent parts.

Thorax.—The lungs were emphysematous, and pigmented, with some hypostatic congestion. There was some œdema.

The heart showed evidence of fatty accumulation and infiltration with some slight hypertrophy of the left ventricle. There was no gross disease of the valves or the aorta.

Abdomen.—The liver weighed 1,417 gm. (50 ounces). It was friable. The gall-bladder was thickened and filled with calculi; old and dense adhesions were present between gall-bladder and omentum. The cardiac portion of the stomach was dilated and thin-walled; the pyloric valve and sphincter were strangulated by a band of adhesion passing from the gall-bladder to the omentum and the transverse colon, and crossing the stomach about the *incisura cardiaca*. The tissues in the grip of this band appeared to be engorged, and were purplish in colour.

Evidence of compression was present in several portions of the remainder of the small intestines with some dilatation.

The spleen and genito-urinary organs showed nothing abnormal, apart from some terminal engorgement.

Reviews.

AN ENCYCLOPÆDIA OF MEDICINE.

The fourth volume[1] of the second edition of the Encyclopædia Medica may be said to maintain the standard set in the first. It contains a vast amount of useful material, spread from ear to filariasis. The criticisms passed on the earlier volumes apply equally to this. There is the unevenness which we must expect in every encyclopædia. A too great fullness is apparent in certain branches specially favoured, or whose chosen specialists write too exhaustively, while other subjects are given the Cinderella rôle. Amongst the Cinderellas of this volume are ecstasy, which is given eight lines, and faith-cure and faith-healing, dismissed in nine lines. We have to condemn the opportunity taken under elixirs of puffing the proprietaries of one particular pharmaceutical firm. On the other hand, the possessor of this volume of the Encyclopædia Medica will scarcely need to buy a handbook of diseases of the ear, for we find no less than 172 pages devoted to that one subject. Eclampsia has 19 pages, ectopic gestation 45, eczema 40, human embryology 65, surgical emphysema 1, enteroptosis 5, enzymes 20, epidemiology 30, epilepsy 18, erythema 8, and three coloured plates, eye, eyeball, eyelids 52, favus 3, and 3 plates. Fibrolysin has a page and a half, strongly contrasting with the few lines given to arseno-benzol or salvarsan in an earlier volume.

[1] Encyclopædia Medica, Second Edition, Volume IV., Ear to Filariasis; Under the General Editorship of J. W. Ballantyne, M.D., C.M., F.R.C.P.E., 1916. Edinburgh and London: W. Green & Son, Ltd.; Sydney: Butterworth & Company (Australia), Ltd.; Royal 8vo., pp. 684, illustrated. Price, £1.

The Medical Journal of Australia.

SATURDAY, AUGUST 11, 1917.

Radiography in Medicine.

The communication from the pen of Mr. Joy on radiological localization and the equipment of a radiological laboratory of military and other hospitals raises an important issue. The medical profession has shown a tendency in the past to regard the application of allied sciences to medicine with some jealousy. Not many years ago there was but little co-operation between the trained chemist and the medical man, and even to-day members of the medical profession are apt to question the understanding of the pure chemist when matters connected with medicine and physiology are under investigation. The aid of the physicist is rarely sought in medicine. Since but few medical practitioners have undergone a thorough education in pure chemistry and physics, this repugnant attitude is liable to stand in the way of progress. A striking example of the disadvantage of the employment of physics without the co-operation with the trained physicist is found in the practice of ionization, a practice devoid of real scientific foundation. It is therefore a cause for congratulation that the military authorities have enlisted the sympathy and active assistance of Professor Laby, the Professor of Physics of the Melbourne University, and have appointed a skilled; trained physicist to work with medical radiographers at the No. 5 Australian General Hospital. The value of this co-operation between the scientific physicist and the medical man in applying a physical phenomenon to medical problems is well illustrated in Mr. Joy's excellent article. Hitherto localization has been achieved by various means, many of which are ingenious, but none have been devised with such mathematical accuracy that the errors can be kept within so small a measurement as 2 mm. There is one exception to this generalization, namely that of localization in the eye. In *The Medical Journal of Australia* of January 13, 1917 (page 25), Dr. J. G. Edwards gave an excellent description of Sweet's method of the localization of foreign bodies in the eye. This method is certainly scientific and possesses a high degree of accuracy. In the case of foreign bodies, and especially projectiles used in warfare, the radiographer should be able to inform the surgeon exactly the situation where the object is lodged. The information should include the position in relation to fixed points on the surface of the body, and should be so accurate that no search should be needed at the operation. The radiographer should be able to tell the surgeon the position of the foreign body in relation to the organs of the body, for this information may be of great value in the determination of the surgical treatment. For example, in one of Mr. Joy's cases a fragment was seen lying at the level of one of the bodies of the vertebræ. He was able to assert that the greater part was embedded in the bone and that the free portion did not endanger any vital structures. The information was confirmed at the operation. Had the surgeon learned that he could rely implicity on this localization, he would have considered the advisability of leaving this foreign body undisturbed. The localization should depend on measurements made in three planes at right angles to each other. Since direct radiograms in three planes could only be applied to certain parts of the body, the physicists have suggested that the radiogram in one of the planes can be replaced by standard sections of the body at definite levels without the loss of accuracy. In this connexion the radiographer will find the Atlas of Anatomy prepared by Professor Berry invaluable. In this work all sections are measured from Addison's fixed points. We hope that as the demand for accurate sections of the normal human body increases, Professor Berry may be induced to supplement his Atlas, so as to supply the requirements of modern radiography.

The value of the knowledge presented to the world by Röntgen in 1895 and that contributed on this subject by other physicists since that date is admitted by all. To secure the full value the best equipment and sufficiently large and appropriate environment are essential. We therefore plead, with Mr. Joy, for greater attention to the construction and equipment of the X-ray department of our mili-

tary hospitals. Too often the radiographer is allotted a small, odd corner and a tube or two, and with these unsatisfactory materials he is expected to give full assistance to the surgeons. Until it is recognized that radiography demands accurate training in physics, favourable conditions of working and the best materials, results will fall short of what they should be. We have recently issued a warning against the employment of half-trained individuals to carry out diagnostic work connected with sight, on account of the danger arising from the want of knowledge of the physiology of the eye and of the diseases which affect the eye and the body. We now plead for the employment of the specialized knowledge of the physicist in a branch of medicine in which both medical and physical science are essential.

THE PATHOLOGY OF DIABETES.

The attention of the whole world to the treatment problem of diabetes mellitus has been intensified within the past few months by the investigations of Allen. The effect of this focussing of attention on the treatment has been that sight has been lost of a regrettable fact that no one has been able to ascertain why the metabolism of carbohydrates and proteins breaks down in this condition and what the real nature of this failure is. Allen glosses over this difficulty in defining diabetes as a disorder of metabolism due to a modification of the internal secretion of the pancreas. Even if it were true that in diabetes mellitus there is an essential modification of the internal secretion of the pancreas, we would still be quite uninformed of the nature of the modification and of the mechanism and chemistry of the disturbance of metabolism. Until we can cast aside vague definitions and replace them by definitions with a meaning based on pathology, the disease will continue to claim its victims and to elude the skill of the therapeutist. Allen has not proved his assertion that the pancreatic hormone is always disturbed in diabetes, and evidence is accumulating that the effect of his treatment is not always favourable. It has yet to be shown that it is ever of the nature of a permanent cure. In diabetes sugar appearing in the urine is an indication that carbohydrate and protein supplied as food cannot be utilized by the body. Minkowski demonstrated nearly a quarter of a century ago that there was a definite relation in depancreatized dogs between the dextrose excreted in the urine and the nitrogen in the urine representing the protein which has undergone metabolism in the body. Lusk followed up the observations in regard to the source of the urinary sugar and in the year 1912 established the fact that in phloridzin diabetes the maximal ratio between the excreted dextrose and the nitrogen in the urine was 3.65 : 1. This means that under the conditions of his experiments 41.6% of the protein was utilized as food and 54.8% was passed unused and appeared in the urine or tissues as glucose. The disturbance of protein metabolism in human diabetes mellitus is difficult to measure, and has received very little attention in the past. On the other hand, the carbohydrate balance has been very accurately watched, since the measurements can be made directly from the variations in the excretions of glucose when varying amount of carbohydrates are given in the diet. There is no reason to believe that sugar in the urine is ever derived from ingested fats. Under these circumstances it is important to note that Herman O. Mosenthal and D. Sclater Lewis have used an opportunity of analysing the metabolism in a very severe case of human diabetes.[1] They note that while the glycosuria in phloridzin diabetes in the dog depends upon an increased permeability of the renal filter to glucose, the primary disturbance in diabetes mellitus is an inability on the part of the body to utilize glucose. It is therefore not surprising to find that the dextrose-nitrogen ratio in human diabetes undergoes great variations. The point of interest, however, is that the maximum was approximately the same as that found by Lusk for phloridzin diabetes. In the case investigated there was evidence that no glucose derived from carbohydrate or from protein was being utilized by the body, and that the fats were being but partially metabolized. There was an excess of acid substances, and as death was approaching the amount of protein available did not suffice for the quantity of β-oxybutyric acid excreted. Hence some of this acid must have been derived from the fats. In order that the disturbance of protein metabolism in diabetes may be better understood, it is evident that further

[1] *Bulletin of the Johns Hopkins Hospital*, June, 1917.

studies are required to analyse the fate of the sugar derived from carbohydrate and from protein as it passes to the blood and thence to the urine. The authors have already adduced some evidence to explain the variations in the dextrose-nitrogen ratio in diabetes. Dealing with the permeability of the renal filter to glucose, they find that even in the absence of nephritis, the amount of sugar in the blood may be raised considerably above the normal without any sugar appearing in the urine. Moreover, they record a case of definite nephritis in which there was a lowered so-called "renal threshold." The fact that the blood sugar content and the urine sugar content have apparently no fixed relationship to one another explains to some extent the variations in the dextrose-nitrogen ratio. They have further found difficulty in explaining the causes of the variations of the amount of sugar in the blood after standard carbohydrate-free meals in diabetics. When the phenomena concerned in the determination of the amount of sugar derived from ingested protein can be analysed with precision and when the reasons why the sugar content of the blood and that of the urine do not coincide or stand in a fixed relationship to one another have been elucidated, we may expect a material advance in our knowledge of the pathology of diabetes mellitus.

INJURIES OF THE BLADDER AND URETHRA IN WAR.

The modifications in the treatment of wounds necessitated by the special characters of the injuries received by soldiers in the war will probably have a profound effect on the recognized surgery of wounds in civil life after the war. Much controversy has taken place on the subject of antiseptics and of the means of dealing with infected wounds generally, and the great chapter of injuries to the abdominal viscera is dealt with in a very large library already. There is one organ in the abdomen, however, that has not received much pointed attention. This is the bladder. This apparent neglect is the more surprising because of the high frequency of its injury. Surgeons will consequently be well advised if they study the opinions expressed on the subject of war wounds of the bladder and urethra by Colonel Andrew Fullerton, C.M.G., a Consulting Surgeon to the British Expeditionary Force.[1] This eminent urologist attacks the problem by recognizing that the track of the missile, be it shell fragment, shrapnel, bullet or bomb, is frequently infected by dirt carried in with the missile, and that wounds of the bladder may be complicated by wounds of the bones and of the intestines. The urethra when injured is often much lacerated and is particularly liable to react unfavourably to the continued irritation of a permanent catheter. Under these conditions the septic process tends to spread upwards toward the bladder along the catheter, which soon becames blocked. When the bladder is involved in the wound, drainage through a suprapubic opening increases the liability of severe purulent infection of the organ and rarely suffices to remove the pus-containing urine in the neck of the bladder. He therefore places his trust in irrigation with normal urine, which he describes as an efficient saline antibacterial fluid. Wounds of the urethra are opened up by means of a perineal urethrotomy and adequate drainage established. The wound is then spontaneously flushed with normal urine, in the act of micturition, and we are informed that the fistulæ soon granulate and heal. Later plastic repair of the urethra may be required. In bladder cases the foreign body may have to be removed and repair may be required of the adjacent organs and tissues. Free drainage is essential in this situation also, and again Colonel Fullerton trusts the irrigations with normal urine to minimize the spread of sepsis. He has found that extra-peritoneal wounds caused by projectiles entering through the buttocks and upper parts of the thighs often tax the skill of the surgeon more than intra-peritoneal wounds. At times he uses irrigation *per urethram* when the urine is foul and offensive, and he reserves the operation of suprapubic cystostomy for cases of greatly infected bladders for the purpose of drainage. In these cases the immediate object is to prevent the spread of the infection upwards to the kidneys. He gives illustrative cases and some details of his mode of treating the several types. The evidence adduced appears to demonstrate that the use of normal urine as an irrigation fluid responds well in the majority of cases.

[1] *Journal of the Royal Army Medical Corps*, May, 1917.

TREATMENT OF DEPENDANTS OF SOLDIERS ON ACTIVE SERVICE.

We have been requested by the Council of the Queensland Branch of the British Medical Association to call the attention of the members of the Branch to the resolution passed on August 6, 1916 (see *The Medical Journal of Australia*, August 21, 1916, p. 187) as follows:—

> That this meeting resolves that members express themselves willing to attend gratuitously dependants of lodge members who have gone to the front until the end of the war.

AUSTRALIAN ARMY MEDICAL CORPS COMFORTS FUND.

Notwithstanding the caustic remarks of "Rip Van Wynkle," which we published in last week's issue, the response to our appeal for contributions for the Australian Army Medical Corps Comforts Fund continues to be most disappointing. The work of preparing the Christmas parcels is now complete. We are anxious to assist the excellent workers at the Depôt to meet the bill, which, as we have already pointed out, is a heavy one.

	£	s.	d.
Amount previously acknowledged	26	0	0
Dr. Robert Edgecumbe Short	2	2	0

Abstracts from Current Medical Literature.

THERAPEUTICS.

(43) Treatment of Tetanus by Antitoxin.

Sir William B. Leishman and A. B. Smallman have made an exhaustive statistical study of 160 cases of tetanus which occurred in military hospitals in France between July 1 and October 31, 1916 (*Journ. Roy. Army Med. Corps*, March, 1917). The investigation is based on the analysis of the detailed information collected on sheets which had been prepared to ascertain what was thought desirable in the light of the recommendations of the committee presided over by Sir David Bruce. The series includes every case diagnosed as tetanus in the British hospitals in France during the three months. The cases can be compared with those of a similar nature treated in the "home" hospitals. Of the 160 patients, 118 died and 42 recovered, a case-mortality of 73.7%. This mortality can be compared with that of the series examined by one of the authors in 1915 in which there were 140 deaths among 179 patients, a death-rate of 78.2%. In the "home" hospitals the mortality is about 25% less than on the other side of the Channel. The authors state it is not permissible to mention the rate of incidence among the wounded, although they think that there is no harm in mentioning that it is higher in wet weather. They have also omitted the analysis of the effect of the prophylactic dose on the rate of incidence, though they state that this procedure is so fully accepted by the Allies and their enemies that no further statistical report is needed. As it was found impossible to determine the cause of death with great accuracy, all persons who died are considered fatal cases of tetanus. From the analysis of the influence of the severity and position of the wound it appears that severe sepsis was present in 78% of the fatal cases and in 57% of the patients who recovered. Gas gangrene was present in more than half the fatal cases. The position of the wound had little effect on the mortality, though wounds of the trunk were somewhat more frequent in fatal cases than wounds of the limbs. In respect to the incubation period, it was found that the average period that elapsed between the wound and the first sign of tetanus was 12.03 days, in the fatal cases this interval was 10.7 days and in the non-fatal cases 14 days. This confirms the general experience that the shorter the interval between the wound and the attack, the less the chance of recovery. The difference is, however, small on the average. The largest number of cases showed symptoms on the eighth day after the wound. In 34 cases an operation of a grave nature was performed before the onset of tetanus. The distribution of fatal and non-fatal cases in respect to operation was the same as in the total number of cases. A similar result appears in regard to the eight cases which were operated on after the onset of tetanus. The figures in regard to the prophylactic value of antitoxin do not seem worthy of analysis, as the lowest mortality occurred in cases which had received no prophylactic injection. Tables are given showing in detail the therapeutic use of antitoxin. The antitoxin has been administered by the intraspinal, intravenous, subcutaneous and intramuscular routes. There are a few instances of its use by the mouth and rectum, but none of its local application to the wound. The table giving the results observed according to the total dose of antitoxin in units, shows a mortality of 87% with a dose of less than 1,000 units, a mortality of 85% with doses of 1,000 to 5,000 units, a mortality of 64% with doses of 5,000 to 10,000 units, a mortality of 76% with doses of 10,000 to 20,000 units, a mortality of 64% with doses of 20,000 to 50,000 units, and a mortality of 50% with doses of over 50,000 units. Tables give the mortality after the administration of the antitoxin by different routes and in various combinations. These show that the greatest mortality occurred when the intravenous route was used alone or in combination with other paths of absorption. Next came the intrathecal route, then the subcutaneous, and the lowest mortality (59%) was noted when the intramuscular path was employed. Further tables give the doses used in the fatal and non-fatal cases treated by each combination of paths of absorption for the antitoxin. The authors have formed the opinion that the value of the intrathecal route has been overestimated. They believe that, on practical and theoretical grounds, the subcutaneous and intramuscular paths are more suitable. They state that the antitoxin is an ideal remedy for the treatment of tetanus, but that little knowledge is available to determine how the antitoxin is to be brought into contact with the tetanotoxin. Reviewing the whole of the evidence that they have collected, they point out the importance of early administration of antitoxin and the use of prophylactic doses as a preventative.

(44) Intravenous Administration of Quinine.

A. D. McLean (*U. S. Naval Med. Bulletin*, April, 1917) has used intravenous injections of concentrated solutions of quinine in the treatment of malaria and hæmoglobinuric fever. He has given 400 intravenous injections of a solution containing 60 mg (1 gr.) in one mil, without a single unfavourable reaction. Some of the patients had severe infections of many months' duration, as a consequence of which they were anæmic, weak and cachectic in appearance, but the intravenous injections were well borne. The solution was made with distilled sterile water each day, and was sterilized immediately before use. Ten or fifteen mils were used as a dose. This was injected directly into a vein in the forearm. Two injections were given daily during the first five days of the treatment and later one injection each day. A course of treatment lasted a fortnight. Thirty-six patients, all of whom were naval ratings, were treated in this way. Thirty of these patients suffered from malarial infection, usually of the benign tertian variety, but five of the patients harboured the malignant tertian organism. Six cases of hæmoglobinuric fever were treated in this manner. Within 60 hours the temperatures fell to normal and the hæmoglobinuria disappeared. The author lays stress on the many advantages possessed by this method of administering quinine over those usually adopted. He insists that a concentrated solution should be employed for intravenous injection, and states that the use of dilute solutions for intravenous injection is sometimes followed by collapse, shock and other alarming and unpleasant symptoms. He also contrasts the simple painless intravenous injection with the painful and dangerous method of intramuscular injection. He has observed that attacks of malaria can be quickly terminated by the use of these concentrated solution, so that the patient is saved much suffering and discomfort.

(45) Chenopodium and Chloroform as Anthelmintics.

M. C. Hall and W. D. Foster relate the results of their experiments on both animals and man in regard to the use of oil of chenopodium and chloroform as anthelmintics (*Journ. Amer. Med. Assoc.*, June 30, 1917). They find that oil of chenopodium has a high coefficient of efficacy against nematode worms. They have found that a single therapeutic dose is sufficient to destroy most species of *Ascaris*. Oil of chenopodium should be administered mixed with castor oil, and should be followed by a second dose of castor oil. This oil should be given on an empty stomach to secure a satisfactory result and to give the patient the maximal amount of protection from the local and systemic effects of the drug. Chloroform has been found more lethal to hookworms than any other drug with which the authors have experimented. They have compared it with santonin, thymol, turpentine, areca nut, tartar emetic, ether, phenols, spigelia and the latex of *ficus flaurifolia*. They consider that chloroform given in castor oil is the most efficient anthelmintic that can be used against hookworms, and that it is as safe as thymol or any other effective drug used in this disease.

UROLOGY.

(46) Hypospadias.

In a monograph on hypospadias and its treatment Carl Beck gives a full historical account of the study of this condition, and traces the development of plastic surgery for its remedy (*Surg.*

Gynec. and Obstet., May, 1917). He defines hypospadias as a maldevelopment of the urethra. The ætiology of the condition is analogous to that of any other developmental defect. The urethra developes by the union of two halves of the embryonal structures. At about the third month the genital prominence in the male developes on both sides of the groove into the *corpora cavernosa*, while the groove by closing in the median line and by becoming deeper forms the urethra. He shows how similar the condition of hypospadias and hermaphroditism may be. Hypospadias is frequently complicated with rudimentary development of the penis, glans and *corpora*, and consequently the patient may easily be mistaken for a female. The symptoms are physical and mental. The physical depend on the degree of the deformity. Urination becomes awkward, since a straight stream may be impossible. Coitus may be prevented, because a normal erection is prevented by the shortness of the urethra. Erection may be associated with pain. The mental symptoms depend on the patient's recognition of the difference between himself and the normal male. The author deals with the diagnosis, which he states may be easy or very difficult, according to the resemblance to hermaphroditism. In penile hypospadias the urethral orifice is on the lower surface of the penis, and in all distinct cases there is an associated malformation of the other structures of the penis. The normal opening of the urethra is represented at times by a blind depression, and there may be other blind openings. The scrotal form of hypospadias is frequently associated with a minute penile extremity, which resembles a clitoris. The urethral orifice in this variety is found in the median *raphé*. A common form of hypospadias is that in which the orifice is situated between the penis and the scrotum. The least common variety is the perineal hypospadias, in which the urethra is practically absent, and the bladder opens by means of a short canal in the perineum. The treatment of hypospadias resolves itself into an attempt to construct a urethral opening at or near the end of the glands, provided that the deformity justifies the attempt. The author does not favour an operation before the patient is at least four years of age. His general health must be good, and he must be worth the effort. No attempt should be made in a puny child, with other deformities. The operation must be performed in such a manner that infection is excluded. Good exact suturing is essential, and there may be no leaking. A cure is not effected unless the urethra is freely movable and permits of an erection without angular deflection, and there is an absence of contracture or stricture of the urethra after the lapse of years. The author describes a large number of operations which have been introduced for the repair of this malformation. He points out that the number of these operations reveals the unsatisfactory results obtained from the majority. For the penile variety Dupuytren's, Dieffenbach's, Hamilton Russell's, Van Hook and Ombrodanne's, Thiersch and Lauenstein's, and Duplay's methods are described and illustrated. The so-called Beck-Rochet method is said to have found favour with many surgeons. For the second group, comprising all the cases of penile and scrotal hypospadias, Duplay's operation or Lauenstein's bridge plastic may suffice, or Landerer's method may be used. He deals with several other methods before describing the technique of his own method. In the third group of operations the aim is the displacement of the urethra to the glands. For this an external prophylactic urethrotomy is performed, and then the urethra is dissected from its bed and pulled through a tunnel made in the glans. It is sutured into the wound in the glans, preferably into a ring of skin or cuff, which enlarges the urethra. This may lead to a good result if the urethra is long enough and if it has sufficient "body." He gives full details of his operation in which he makes a transverse incision and builds up an artificial urethra, utilizing the skin of the prepuce.

(47) Renal Calculi.

G. G. Smith discusses the natural history of calculus formation and the surgical aspect of calculous kidneys (*Boston Med. and Surg. Journ.*, April 12, 1917). It is held that a renal stone developes from a nucleus of organic material. Some observers believe that crystals deposited from a supersaturated urine may become bound together by a colloidal substance. Cabot and Crabtree, arguing from the observation that a calculus only formed once in the remaining kidney in 12 cases of nephrectomy for stone, whereas the stone recurred 32 times in 66 cases, in which the original stone was removed by pyelotomy or nephrotomy, concluded that there was some condition in the kidney itself which influenced the formation of stone, but which did not exist to the same extent in the opposite kidney. The author points out that Cabot and Crabtree's figures would rather suggest that in patients subjected to nephrectomy stone recurs once in 12 instances, while in ordinary people it only occurs once in 100,000. His own experience teaches him that bilateral stone is not uncommon. He met with it five times in 34 cases. The most common constituent of renal calculi is oxalic acid. This is derived from ingested food, such as rhubarb, spinach, strawberries, figs, tomatoes and plums. Calcium oxalate is the least soluble of the salts which commonly form stone. The next substance in frequency as the chief constituent of stone is phosphoric acid. He deals with the part played by acid sodium phosphate and di-sodium phosphate in maintaining the reaction of the blood, and explains the chemical basis of this balancing by quoting from Forbes and Keith. Calcium, magnesium and ammonium phosphates, which are frequently found in calculi, vary in their solubility, the first being but slightly more soluble than calcium oxalate. While uric acid is rarely the chief constituent of the stone, it probably furnishes the nucleus of the large majority, and is commonly present in traces. It is derived from endogenous sources. Calcium carbonate rarely forms stones in man. Renal calculi are formed as a rule between the ages of 15 and 35. In certain districts they are frequently met with. In discussing the pathology of calculous kidneys, he points out that the damage done to the organ depends on obstruction or infection. The symptoms include a dull lumbar ache, or a sharp colicky pain, frequently associated with nausea. In some cases radiography does not give satisfactory evidence of calculi. The stone may fail to cast a shadow, or a shadow due to a calcified gland or other structure may be mistaken for a calculus. The wax tip catheter will often reveal the presence of a calculus in a dilated calyx. In regard to treatment, the author discusses the relative merits of nephrectomy, pyelotomy and nephrotomy. To prevent recurrence, he suggests that a pyonephrotic kidney with insufficient ureteral drainage should be removed, and that poorly drained pockets in the kidney should be obliterated, or otherwise dealt with.

(48) Hernia of the Bladder.

John Saliba reports a case of hernia of the bladder (*Journ. Americ. Med. Assoc.*, April 22, 1017). The patient was a woman aged 54 years, who had noticed a lump in the right groin for four years. Three days before admission to hospital, the bowels failed to be moved; on the following day she complained of abdominal pain, felt ill, and vomited. Later all the symptoms of strangulation appeared. On examination a globular swelling, about the size of a hen's egg, was found under Poupart's ligament on the right side. It was situated below and to the outer side of the right pubis. There was no strangury or hiccough. On catheterization 120 c.cm. of highly coloured urine were withdrawn. An operation was performed. On incising over the tumour, the hernial sac was unexpectedly exposed. The usual coverings were not discovered, notwithstanding a careful search. The exposed structure communicated directly by means of its neck with the peritoneal cavity. The sac was dense and very tense. It was pinched up, and a small opening made into it. Some clear amber fluid escaped. The opening was enlarged. On further examination of the edges of the wound it was found that the bladder was present in the sac, and was partly adherent to it. Its wall had been accidentally wounded, and was again wounded when the thickened mouth of the sac, which prevented the reduction, was being divided. The bladder wound was sutured after it had been cleaned with ether, and the sac was dealt with by Bassini's method.

SUBMARINE VENTILATION.

An account[1] of the mechanical devices for ventilation and renewal of the air on the submarine *Balilla* has been published by Dr. R. Marantonio, Major, Medical Corps, Royal Italian Navy, who justifies his brief description on the ground that vital hygienic principles for the benefit of those who live at sea, are not the property of any flag or nation, and should not be kept secret.

The *Balilla* is 65 metres long and displaces, when submerged, 1200 tons. She possesses a double-walled hull, and is propelled by screws driven by combustion engines and electric motors. The conning tower is provided with two periscopes, and four hatchways afford access to the deck. The boat is divided into seven habitable spaces by eight water-tight bulkheads, and the adjacent compartments communicate by elliptical openings closed by double water-tight doors. The fore and aft spaces are torpedo rooms. Next to these are compartments holding storage batteries. The central operating-room, the space for the combustion engines and that for the electric motors are arranged respectively from forward aft. These spaces are divided horizontally by floor plates into two stories, that for thoroughfare and that for the bilges. The space between the hulls is similarly divided. The upper division serves for the free circulation of sea-water, while the lower division constitutes the trimming tanks used in submerging and emerging. The free habitable space within the strength hull measures 567 cubic metres. This allows for the complement of 36 men not more than 15.5 cubic metres per person.

Vitiation of the respirable air is brought about by the withdrawal of oxygen, exhalation of carbonic oxide and elimination of water from the people on board, by the increased temperature due to machinery in motion and by the production of noxious gases from storage batteries and combustion engines. Since the various parts of the boat are not equally affected by vitiation of the air owing to differences in the cubic capacity, in the number of men in a compartment, and in the distribution of engines and apparatus, uniformity of atmospheric conditions in the different compartments is assured by a mechanical device for the circulation of air throughout the vessel. Ventilation is brought about by the expulsion of vitiated air and its replacement by fresh air drawn from without or derived from a supply of compressed air. Vitiated air is also regenerated by the absorption of carbonic oxide and water and by the addition of oxygen.

Natural ventilation may be secured in port through the openings in the deck when there is some wind. The supply of air through the hatches is not sufficient in a mild warm climate or during atmospheric calm, especially if the air is heated by running machinery. Artificial ventilation is constantly necessary on this submarine, though benefit is derived from natural ventilation whenever possible.

A general distributing system is installed to circulate air throughout the boat. It consists of a tube making an entire circle of the habitable part of the ship at the level of a man's head. In each compartment are two openings, one on each wall, closed by valves. At each bulkhead is an intercepting valve. At the extreme bow and stern are butterfly valves, so that a left and right ventilating arm can be employed. Fore and aft are electric fans. These can be used either to exhaust air from one arm and pass it into the torpedo room or drive air from the torpedo room into the ventilating tube. In use one blower exhausts, while the other supplies. In this way every compartment is supplied with air on one side and exhausted of air on the other. When the hatches in the torpedo rooms are open, the air in the torpedo rooms is renewed from outside, and the vitiated air discharged into the room whence it passes through the hatch to the open air. When the boat is submerged, this arrangement serves to produce uniformity of atmosphere in all parts of the boat.

A series of devices are installed to renew the air from the external atmosphere. These are designed to operate with different degrees of submergence. The first parts of the submarine to emerge from the water are the two prisms of the periscope, which are placed 7 metres above the water-line when the boat is afloat. Immediately behind the periscopes are two ventilating tubes the openings of which are three metres above the superstructure of the deck. These are the second parts to pass out of the water. As the submarine continues to emerge the top of the conning tower rises above the water and a large single hatchway opening into the central operating room is above water. There are also now available two special ventilators for the combustion motors. These are automatically closed by hatches as the boat sinks. A single exhaust outlet for the combustion engine blowers is also above water. If the boat comes to the surface, the hatches on the decks come above the water. When the submarine is running on the surface, either afloat or in partial submergence for concealment, the propellers are driven by the combustion engines, consisting of 12 Diesel motors. The cylinders for the combustion of the gasoline are supplied with air by two powerful electric fans, which are placed opposite the inlets of the ventilating hatches which open on the conning tower. The violent draft of air caused by these fans is distributed to each of the engines. The gases of the cylinders passes out through the hull. A pair of small blowers collect the air in the chamber above the engines, and by means of two tubes which unite above, expel it through the single exhaust on the conning tower. By means of two small openings in the intake ventilators the powerful draft is used to renew the air of the combustion engine compartment.

The combustion engines not only drive the propellers but supply the power to the dynamos which charge the storage batteries which propel the ship during under-sea cruising. During the charging of the batteries fumes of sulphurous oxide and sulphuretted hydrogen are evolved. These vapours, which would soon render the air irrespirable, are carried outside the boat. The batteries, hermetically closed by lids, communicate with each other by piping which passes the gases released from the batteries to a single exhaust pipe. These pipes run through the bulkheads to the central operating room forward and the electric motor room aft. In these chambers powerful turbine blowers suck the gases from the batteries and expel them into piping, running between the hulls for some distance and finally opening into the ventilating shaft immediately behind the aft periscope.

When the boat is running with electric motors, and the dynamos are not in use, the batteries do not give off noxious gases. These powerful blowers are then used for the ventilation of the ship if submerged to the position of concealment. The turbine of the aft storage battery is connected to a ventilating arm of the general circuit, when it will suck air from every compartment and ejects it through the aft ventilating shaft. The forward turbine is connected with the ventilating shaft behind the fore periscope and sucks air through the shaft and drives it by the other ventilating arm, to which it is connected by a rubber tube, into all the compartments. When this is in use, the valves at the ends of the general distributing circuit are closed. The forward blower of the distributing circuit is not in use when the boat is submerged to this extent, but the aft blower is used to aid in exhausting air from the various compartments. Ventilation under these conditions is very effective.

When the boat is quite submerged and is propelled by the electric motors, much heat is generated. It is no longer possible to communicate with the external air, and no renewal of fresh air is possible. By using the various blowers air is passed as rapidly as possible through the general distributing circuit, so that the heater air is cooled as far as possible by serving to warm the whole boat. It is also cooled by being passed between the hulls where the sea-water circulates freely. The turbine of the aft storage battery is in the electric motor room, and serves, when the boat runs awash, to drive the air of the general distributing system to a tube running between the hulls to the ventilating shaft behind the aft periscope. When the boat is submerged, this tube is opened as it ascends in the conning tower, and the air is driven into the central operating room after being cooled.

When a submarine is completely submerged, the agitation and cooling of the air leads to a transient improve-

[1] *United States Naval Medical Bulletin*, April, 1917.

ment. Soon, however, it becomes necessary to renew the air if respiration is to remain effective. An apparatus is used for determining the percentage of carbonic oxide in the air. When the percentage reaches a certain figure the apparatus for the chemical purification of air is set in operation. The purifying batteries are designed to absorb carbonic oxide and water. They can be connected to the general distributing circuit so that all the air in circulation must pass through them. The batteries consist of elements known as "capsules" containing homogenous granules of the size of millet seed. These granules absorb carbonic oxide and water. The elements are weighed, and, when they have gained 250 gm. in weight, are disconnected. By noting whether they are warm it is possible to tell how efficiently they are acting. Each battery removes the carbonic oxide excreted by 40 persons in 8 or 10 hours. A reserve of 200 capsules is carried for use in emergencies. A few capsules, with special mouth-pieces, are kept in each compartment for use by individuals when some special casualty affects that compartment.

In addition each compartment contains a steel cylinder of 8 litre capacity, containing oxygen for breathing. In all 226 litres of oxygen are available for each person on board. The oxygen from these cylinders can be passed through purification capsules and distributed all over the ship or to individual persons.

A submarine also has a large supply of compressed air used in raising the submarine from the bottom by driving water from the tanks between the hulls. The amount on the *Balilla* amounts to 2 tons, compressed into 9000 litres. This stock is never diminished except when absolutely required. When the submarine can rise slowly, the water is pumped from between the hulls by turbines discharging 100 tons per hour. When needed this water is driven out by air compression. The amount of air stored is sufficient to raise the boat from the bottom five times. When the submarine is on the bottom, the compressed air will supply respirable air to forty person for two days. Under these conditions of disaster the vitiated air is expelled from the boat and fresh air admitted from the compressed cylinders. The barometer is used to control the changes of pressure during these operations.

Rescue ventilation can also be given by a diver from without. The diver connects tubing with certain plugs placed on the deck and easily found by touch. Through these plugs air can be pumped into the general interior. These plugs also serve to pump air into the space between the hulls. The wrecked victims are able to use the air for respiration or for raising the ship according to the urgency of their need.

British Medical Association News.

MEDICO-POLITICAL.

A meeting of the Queensland Branch was held on July 6, 1917, Dr. W. N. Robertson, the President, in the chair.

The President welcomed Dr. Espie Dods on his safe return from the war.

Gratuitous Attendance on Dependants of Members of the A.I.F.

Colonel A. M. McIntosh stated that it had been brought to his notice by the Patriotic Association that members of the Branch had not been observing the resolution dealing with gratuitous treatment on dependants of Lodge members and other soldiers on active service. He had reason to believe that only a few members were disregarding the wishes of the Branch. He suggested that the resolution should be reaffirmed.

Dr. J. Lockhart Gibson formally moved the reaffirmation and Dr. A. C. F. Halford seconded the motion. The latter suggested that a receipted account should be sent to the patients to show the value of the work done on these occasions, and also that the resolution should be advertised to the members.

Dr. J. Espie Dods thought that it would be a mistake to give a receipt, but agreed with Dr. Halford that the resolution should be issued to the members.

Dr. Graham Brown asked Colonel McIntosh if a returned soldier had any claim for treatment at a military hospital for a disability arising subsequent to his return.

Colonel McIntosh replied that he would only have a claim for a disability arising in the course of his duties as a soldier.

The motion was put to the meeting and carried.

Country Hospitals.

Dr. A. C. F. Halford presented the following report of the Country Hospitals Sub-committee:—

The undersigned, being a Sub-committee appointed by resolution of the Branch at its meeting held on 1st June to deal with the bad conditions existing at many country hospitals affecting the positions of the medical officers of those institutions, beg to report as follows:—

We think that the position is best dealt with from two points of view. 1st.: It is desirable that candidates for these positions should make themselves *au fait* as far as possible with the conditions that should subsist and do not, at country hospitals.

There should be in the mind of these gentlemen a proper perspective of the functions of a hospital. They must remember that these institutions get the unqualified support of the medical profession when they are run as charitable institutions. Departures from this underlying principle or function must be viewed with care. It must be distinctly impressed on intending applicants that the more a patient shows himself able to pay the hospital charges the less he is entitled to the use of the institution and the attention of the resident medical officer. A circular letter giving suggestions on these lines to resident medical officers would be, we think, useful.

2ndly.: A definite stand should be taken towards hospital committees, and where necessary enlightenment on the proper treatment of the resident medical officer as the pivot on which all efficient hospital service depends might be proferred.

We think the first step in this campaign should be the establishment of a model set of rules and regulations affecting the management of hospitals from the point of view of patients, nursing staff and medical staff, to be adopted by all hospitals. The limited time at our disposal precludes this being done, but if the Branch is in accord with this and the other suggestions incorporated in this report, we are willing to set about drawing up the documents referred to and incidental matter cognate thereto.

We think that resident medical officers, being members of the British Medical Association, should be informed that in all invidious positions in which he finds himself by virtue of sticking to the ethics and tenets of his profession he will be backed by the Association. It would be useful and encouraging to these practitioners if the Branch were able to establish an information bureau concerning hospitals in the country and the opportunities for private practice if any likely to be available. We also think it is highly desirable that by a standing advertisement applicants for hospital appointments should make application through the Branch, and that hospital committees should be cordially invited to do the same.

The following extract is taken from the report of the Inspector-General of Charitable Institutions for the year 1900. It refers to annual subscriptions to hospitals, whether deducted from wages or not, entitling the payee to free hospital treatment:—

> Money thus collected is subsidised by the Government at the rate of £2 for £1 . . . Rules of this kind tend to alter fundamentally the whole original objects of the hospital system, and to place them on a similar platform with the friendly societies.

The President thanked Dr. Halford for the report, and expressed the hope that the Branch would ask the Sub-committee to draw up a further report at a later date.

Dr. L. M. McKillop expressed the view that the appointment of medical officers to country hospitals should be effected through the Queensland Branch.

Dr. Espie Dods said that if the Branch started a bureau, they would have to "hall-mark" all the men recommended for the position. It might be very difficult to discriminate in some cases. Dr. R. H. La B. Cummins said that they had had bitter experience with country hospitals. He

thought that a bureau of information would be a very great help both to the medical men and to the hospitals.

It was resolved to refer the matter again to the Sub-committee.

Members Returning from the Front.

A discussion ensued on the advisability of appointing a sub-committee to deal with members returning from the front. The matter was referred to the Council.

Poisons Regulations.

Sir David Hardie moved that Dr. W. W. R. Love and Dr. J. Lockhart Gibson be appointed to deal with the poisons regulations, and be instructed to furnish a report direct to the Government.

Dr. L. M. McKillop informed the meeting that a similar bill had been introduced into the Victorian Parliament. He thought that valuable information would be available to the Sub-committee, if it applied to the Victorian Branch.

The Referendum.

The President announced the result of the voting on the question of applying for legislation to effect compulsory enlistment of the medical profession for service at home and abroad:—In favour, 111; against, 19.

The Registration of Opticians.

Dr. J. Lockhart Gibson read a paper entitled "Notes on the Relationship of Opticians to the Profession and to the Public" (see *The Medical Journal of Australia*, July 21, 1917, page 47). He prefaced the paper by reading an advertisement of a Brisbane optician, with testimonials from several medical men. This advertisement had been distributed in Bowen.

The President thanked Dr. Lockhart Gibson for his paper.

Dr. W. F. Taylor said that the medical profession and the general public were much indebted to Dr. Gibson for the clear manner in which he had explained the relation of opticians to both the profession and the public in the valuable paper he had just read. He was pleased to know that the Federal Committee of the British Medical Association in Australia at its last meeting had condemned the registration of opticians as sight testers, in the interests of the public, and had expressed its disapproval of medical practitioners occupying seats on a Board formed to administer an Act entitling opticians to register, as in the case in Tasmania. The Tasmanian Opticians' Board was composed of five members, three of whom were opticians and two medical practitioners. It was difficult, therefore, to understand how the two medical members of the Board could exercise any controlling effect over the three opticians, who could out-vote them every time. The fact that the Opticians' Board had medical members sitting on it would be regarded by the public as a guarantee of the fitness of the opticians to perform the work which they pretended to be able to do, and which medical practitioners with any knowledge of ophthalmology were aware that they were not competent to undertake. Opticians had not such knowledge of the diseases of the eye and of the diseases of the systems which affected the eye to enable them to practise sight testing with safety to the public. Dr. Taylor held that it would suit the opticians' purpose to have medical practitioners on their Board. They could then assert that they had the endorsement of the medical profession that they were qualified to practise as sight testers.

The herbalists had been agitating for some time for an Act of Parliament to provide for their registration. About four years ago they succeeded in inducing the Government of the day to bring in a Bill, and this Bill actually passed the Legislative Assembly. It was rejected by the Legislative Council. He asked whether the medical profession would sanction its members to take a seat on a herbalists' board if they were successful in their efforts. He did not think so. He considered that the cases of the opticians and the herbalists were, to a great extent, parallel. Dr. Taylor said that the Opticians' Bill might be re-introduced shortly, and suggested that a special meeting should be held to discuss the whole question.

Dr. J. Espie Dods moved and Dr. Graham Browne seconded that the discussion be adjoined until July 13, 1917.

At the adjourned discussion Dr. W. W. Hoare said that he thought that the Opticians' Bill was a step in the right direction, because there were a number of men who merely made money by selling glasses to the public. He suggested that the Bill should be amended to provide for at least the same number of medical men as of opticians on the Board. He held the opinion that opticians would always abuse and overstep their limits. He considered that it would be better to have opticians registered as sight testers, in order to keep them under the control of the law.

Dr. E. Russell remarked that it was a pity that there was so small an attendance to discuss such an important question. There were three parties involved in the matter, the medical profession, the opticians and the public. He thought that a sub-committee of opticians and medical practitioners should be formed to consider any legislation before it was presented to Parliament.

Dr. W. F. Taylor pointed out that if the Bill were passed, everyone practising at present as an optician would be registered. That was, in his opinion, one of the strongest arguments against the Bill.

Dr. L. M. McKillop said that the Bill was an attempt to check an evil. The same thing had happened with the Nurses Registration Bill. The Bill would prevent fresh men entering practice as opticians, unless they qualified under its provisions.

Dr. A. C. F. Halford stated that nurses and medical men qualified in the school of experience, while opticians learnt only the theoretical side of their profession. It would be quite illogical to register men who had had only a quasi-scientific training, and to put them on a level of medical men who had been thoroughly trained. There was always a back-door entrance to registration. He thought that any man might be put on the Register by a politician, if he could bring influence to bear.

The President said that it was his opinion that medical men would be in support of the Bill if it provided for the registration of opticians as spectacle makers. It would then be an indication as to who was fit to dispense oculists' prescriptions. He suggested that this aspect of the matter should be brought to the notice of politicians. They did not wish to stop the Bill altogether, and were prepared to support it up to a certain point.

Dr. J. Lockhart Gibson suggested that a circular should be sent to every member of the lower House. They should also let the politicians know that the medical profession in Queensland could not allow any of its members to sit on the Opticians' Board, if the Bill were passed.

Dr. W. F. Taylor moved that a circular similar to the one sent out in December, 1916, to the Legislative Council be sent to the members of the Legislative Council and Assembly.

Dr. Graham Browne seconded the motion, which was carried.

Dr. J. Lockhart Gibson moved, and Dr. H. C. F. Halford seconded, that a circular, informing the Council and Assembly that members of the Queensland Branch could not sit on a Board if the Bill were passed in its present state, be also sent. The motion was carried.

Dr. J. Lockhart Gibson moved: that it is unnecessary for medical men to sit on the Opticians' Board, if the Bill is amended as desired by the Branch.

Dr. Halford seconded the motion, which was carried.

Dr. J. Espie Dods moved that a deputation should wait on the Home Secretary for the purpose of discussing the matter, and that the deputation consist of the Council of the Branch, together with other members, if thought necessary. The motion was seconded by Dr. Halford and was carried.

Robert Martin, M.B., 1917, Univ. Sydney, of the Women's Hospital, Crown Street, Sydney, has been nominated for election as a member of the New South Wales Branch.

AUSTRALASIAN MEDICAL PUBLISHING COMPANY, LIMITED.

Annual Meeting.

The Annual General Meeting of members of the Australasian Medical Publishing Company, Limited, was held at the Medical Society Hall, East Melbourne, on August 2, 1917. The following is the report of the Directors:—

Directors' Report.

The Directors submit their Report for the past year and Balance Sheet as at 30th June, 1917, together with

Profit and Loss Account for the twelve months ended 30th June, 1917.

As hitherto, the activities of the Company have been confined to the production of the *Medical Journal of Australia*. Bearing in mind the fact that the great War commenced when the Journal was in its earliest beginnings, and that it has waged ever since, it is a matter of congratulation that the Journal has continued to appear regularly week by week throughout the whole period. It is gratifying also to note that it has maintained a high standard of scientific excellence, and further established itself in usefulness as the official organ of the Branches in Australia.

Dr. W. N. Robertson and Dr. F. S. Hone retire from the Board of Directors in accordance with the Articles of Association, but are eligible and offer themselves for re-election.

W. H. CRAGO,
CHAIRMAN.

Dr. W. N. Robertson and Dr. F. S. Hone were duly re-elected Directors of the Company.

Naval and Military.

Our attention has been drawn to the fact that we have omitted the name of Lieutenant Charles Montagu Harris in the list of Australian practitioners who have given their lives for their country. Lieutenant Harris held a commission in the Royal Army Medical Corps and died of wounds on August 28, 1915 (see *The Medical Journal of Australia*, September 11, 1915, page 260). We should be greatly indebted to our readers if they would draw our attention to other omissions, should we have made any.

It is with deep regret that we have to record the death of Major William Duncan Kirkland, M.C. Major Kirkland was killed in action on July 22, 1917.

The 328th list of casualties, issued on August 1, 1917, contains the names of 793 officers, nurses and men, of whom 213 have been killed in action, died of wounds or of other causes, 321 have been wounded and 24 are missing. There are no names of medical man included in this list. From a statement issued by the Defence Department on August 1, 1917, it appears that there have been, from the commencement of the war up to July 28, 1917, 28,547 deaths, 43,238 men wounded, 4,056 men missing, 27,207 men sick, 2,143 prisoners of war and 248 who have sustained casualties the nature of which is unknown. The total number of casualties among the Australian troops is therefore 105,439. The figures given under the heading "wounded" do not include those cases in which the men have been wounded and returned later to the firing line.

We learn that Captain Roy Coupland Winn has been awarded the Military Cross. Captain Winn received his commission in July, 1915, and served with the Australian Imperial Force, first in Gallipoli and then in France. He has recently been wounded, and we understand that he had to undergo the operation of amputation of his foot.

According to a cable received from London, a number of officers of the Australian Imperial Force have been mentioned in the War Office Despatches for valuable services. The list contains the following names: Colonel Newland, Colonel Poate, Colonel Powell, Major D. Mackenzie and Captain Holder. It is probable that these officers are Lieutenant-Colonel H. S. Newland, Lieutenant-Colonel H. R. G. Poate, Lieutenant-Colonel H. A. Powell, Major D. Mackenzie and Captain S. E. Holder, who are all members of the Army Medical Corps.

Major Noel Edmund Barton Kirkwood has been awarded the Military Cross.

The following announcements of appointments, promotions, etc., have been published in the *Commonwealth of Australia Gazette*, No. 121, of August 2, 1917:—

Australian Imperial Force.

Appointment.

His Excellency the Governor-General, acting with the advice of the Federal Executive Council, has been pleased to approve of the following change in connexion with the Australian Imperial Force, viz.:—

Army Medical Corps.

To be Major—

Honorary Major D. A. Cossar, Staff Officer to Director-General, Australian Army Medical Services. Dated 4th August, 1917.

2nd Military District.

Australian Army Medical Corps—

Honorary Majors J. Booth-Clarkson and W. C. McClelland and Honorary Captains W. C. Howle, W. A. R. Sharp, C. B. Howse, E. A. Tivey, J. H. Paul, F. M. Suckling, W. E. Harris, E. C. Hall, C. W. Bruce, A. I. Blue, A. J. Bracken, F. W. Doak, J. Mackenzie, E. A. R. Bligh, T. L. Pawlett, W. G. Sheilshear, F. S. Tange, P. S. Jones, W. H. Elworthy, R. O. Williams, G. A. Buchanan, W. D. Langton, J. E. V. Barling, and F. C. Rogers are transferred from Australian Army Medical Corps Reserve and are Captains (provisionally and temporarily). Dated 1st July, 1917.

Australian Army Medical Corps Reserve—

Thomas Myles is to be Honorary Captain. Dated 9th June, 1917.

Alexander Hamilton Rutherford is to be Honorary Captain. Dated 14th June, 1917.

Alexander Hugh Harris is to be Honorary Captain. Dated 15th June, 1917.

Stephen James Hogue is to be Honorary Lieutenant. Dated 1st May, 1917.

3rd Military District.

Australian Army Medical Corps Reserve—

Ernest Weston Sutcliffe, William Spalding Laurie, and Thomas Alexander McLean are Honorary Captains. Dated 15th July, 1917.

4th Military District.

Australian Army Medical Corps Reserve—

Arthur Kyle Gault, Hugh William Bell Cairns, Frank Howard Beare, Norman Bruce Hall, Brian Formby Moore, Eric Lindsay Symons, George Harry Kendrew, and John Newton Webb are Honorary Captains. Dated 6th July, 1917.

Alan Reid Bean and James Alexander Rolland are Honorary Captains. Dated 7th July, 1917.

John Besley Gillen is Honorary Captain. Dated 9th July, 1917.

Eric Elihu Broadbent is Honorary Captain. Dated 10th July, 1917.

Payment of Allowances.

His Excellency the Governor-General, acting with the advice of the Federal Executive Council, has been pleased to approve of Quartermaster and Honorary Captain G. E. Sykes, A.A.M.C. (Permanent Services), being granted an allowance of £25 per annum for the period of the war, in addition to his present salary. To date from 1st July, 1917.

News of Men at the Front.

——— ——— writing from "somewhere in France" to Dr. W. N. Robertson, gives some interesting details of the work of the No. 2 Australian General Hospital. The following is extracted from the letter:—

As you know, ——— in O.C. of this unit. . . . . The work at this place is very different from the work at No. 1 Australian Auxiliary Hospital, Harefield, and at the No. 3 London General Hospital, Wandsworth, my two former places in England. At both those hospitals you have plenty of work, but the cases come to rest for a time after their constant evacuation from place to place, commencing the moment they are wounded; consequently, one has more time to group the man's condition and to think out the best line of treatment. At my former hospitals, the orthopædic side was very prominent, and also the line of treatment of bone injuries, removal of sequestra, the question of repair of ununited fractures by bone grafts, etc. Again, one had cases of stone in the kidney, removal of metal or stone from the bladder, repair of nerve injuries, liver abscesses, preparing stumps for limbs, etc.

At all hospitals and field ambulances in the lines of com-

munication there are underlying principles which one must not forget. Perhaps I can explain myself better by one or two examples of what I mean. The most important point is to evacuate men wounded as quickly as possible, otherwise your lines of communication become blocked, and then the Army and wounded men, as a whole, suffer. Quick decision and rapid and effective treatment are thus necessary for evacuation. You will realize from this fact that one should not waste time on a man obviously certain to die, to the detriment of other cases likely to live by effective treatment. Then again, certain cases stand transport much better than others. Cases of head injury, or wounds of the thorax and lung with hæmothorax do not bear transport at all well. We never know when a big push is coming, so that we must keep our beds as empty as possible. You will realize what this means when I say we had 800 admissions in one night recently, and that we passed 8,091 patients through last month, most of them in the last three weeks. From what I have said, you will observe the question of evacuation bears an important aspect with regard to your treatment, and that a great deal of time must not be wasted on one man to the detriment of the larger number. Then another important point is surgical interference in shell wounds and gunshot wounds. Say ten men are shot through the calf of the leg or thigh, and that the men all walk to the field ambulance and are evacuated to the casualty clearing stations and base hospitals. Though the metal has passed right through, fully nine of these will have khaki carried into the limb and pus forming inside and tracking up the planes of the muscles, with anaerobes developing, multiplying and shut in beneath the deep fascia. Gas gangrene will thus develope, or foul-smelling abscesses form, eroding the arteries, such as the posterior tibial. With such a prospect, and with a favourable nidus for tetanus germs, you will see how important a factor it is to open your wounds widely. The wounds should be excised as early as possible, a very important point being to divide the deep fascia very freely. A surgeon who goes straight up to the casualty clearing station, does not realize this point, consequently numbers of lives are lost from wounds not being very widely opened further up the line. We open very widely, and I am sure you know how conservative I am in surgery. Still, I am absolutely convinced that it is the only way to save the poor fellows' lives. If you saw how widely I open wounds (without knowing the reason and seeing the same for yourself) I think you would imagine that I had run amok. When the wounds have been widely opened, we insert Carrell's tubes and eusol every hour, and sometimes Dakin's solution. The dressing is a layer or two of eusol gauze and pads of sphagnum moss. I am a great advocate of leaving wounds widely open to the air, with only a layer of gauze, if practicable. So far, we have had no flies; but perhaps with the summer approaching they will also spring forth.

With regard to injury of joints from pieces of shell, causing fracture of bones and sepsis, there is room for difference of opinion. At present one of the surgeons here is keen on excision in preference to amputation. You must remember the wounds are very septic, and a life is often saved by early amputation, while if a long course of sepsis supervenes, it is often lost. I think one must judge impartially all cases on their merits, but I will say that more lives are lost by hesitating to amputate limbs in septic injuries to joints than both limbs and lives are saved by excision. One's judgement has to be very acute in these and other important problems, and truly "he who hesitates is lost" can well be applied to conservative surgery in connexion with excision in septic cases, and also in many other aspects of war surgery.

Wounds of the chest present many and interesting problems. I have not had the temerity to open the chest widely and remove the foreign bodies and sew up the chest. I think we receive the cases too late for such radical operative treatment; perhaps, if I am able to get up to a casualty clearing hospital, I may some day be tempted to try the same. The principle one must bear in mind always is how to save the greatest number of lives and restore the men to usefulness. I have had several cases of localized tetanus, a condition I knew nothing about before this war. The tetanus is evidently influenced by the primary injection of antitetanic serum. Every wounded man has an injection, and another within eight days. In spite of the serum, my cases have all died so far. One man in whom I opened a diaphragmatic abscess, and who was doing splendidly, suddenly developed tetanus. I had sent up some of the pus for examination, and it showed almost a pure culture of tetanus bacilli. At the post-mortem examination I discovered a tiny fragment in the first lumbar vertebra. I have had several interesting cases of diaphragmatic abscess, so you see the work is very varied.

With regard to fractures, the best results obtained are using Thomas's splints or their modifications. You are able to dress the wounds without taking the limbs off the splints, and extension is obtained by strips of gauze fastened by a special preparation of glue. Various devices are used to fasten rings to the feet, in order to obtain extension from the foot in fractures of the leg. The "Thomas" splint is the simplest and best. The old "Liston" should never be used in the thigh fractures. For the arm injuries the "Thomas" or "Thomas" modified by Jones, or "Salmon-Jones-Thomas" modification, are the best.

Public Health.

NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, during the fortnight ending July 28, 1917:—

	Metropolitan Combined District.		Hunter River Combined District.		Rest of State.		Total.	
	Cs.	Dths.	Cs.	Dths.	Cs.	Dths.	Cs.	Dths.
Enteric Fever	12	0	2	0	6	0	20	0
Scarlatina	41	1	6	0	17	0	64	1
Diphtheria	123	2	18	0	97	2	238	4
Cerebro - Spinal Meningitis	1	1	0	0	2	1	3	2
*Pulmonary Tuberculosis	41	21	3	2	21	1	65	24

* Notifiable only in the Metropolitan and Hunter River Districts, and, since October 2, 1916, in the Blue Mountain Shire and Katoomba Municipality.

VICTORIA.

The following notifications have been received by the Board of Public Health, Victoria, during the fortnight ending July 29, 1917:—

	Metropolitan.		Rest of State.		Total.	
	Cs.	Dths.	Cs.	Dths.	Cs.	Dths.
Diphtheria	95	2	41	0	136	2
Scarlatina	53	0	26	0	79	0
Enteric Fever	2	0	2	0	4	0
Pulmonary Tuberculosis	39	16	14	5	53	21
Cerebro-spinal Meningitis	4	—	2	—	6	—
Poliomyelitis	1	—	0	—	1	—

QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the fortnight ending July 28, 1917:—

Disease.	No. of Cases.
Pulmonary Tuberculosis	12
Diphtheria	72
Scarlatina	20
Erysipelas	7
Enteric Fever	4
Ankylostamiasis	1
Poliomyelitis	1

WESTERN AUSTRALIA.

The following notifications have been received by the Department of Public Health, Western Australia, during the fortnight ending July 21, 1917:—

	Metropolitan. Cases.	Rest of State. Cases.	Totals. Cases.
Enteric Fever	3	2	5
Diphtheria	12	7	19
Scarlatina	7	3	10
Pulmonary Tuberculosis	13	4	17
Erysipelas	1	1	2
Ophthalmia	1	0	1
Anthrax	1	0	1

SOUTH AUSTRALIA.

The following notifications have been received by the Central Board of Health, Adelaide, for the week ending July 21, 1917:—

	Adelaide. Cs.	Adelaide. Dths.	Rest of State. Cs.	Rest of State. Dths.	Totals. Cs.	Totals. Dths.
Diphtheria	4	1	14	0	18	1
Pulmonary Tuberculosis	0	0	10	6	10	6
Pertussis	0	0	8	0	8	0
Scarlatina	1	0	4	0	5	0
Morbilli	0	0	3	0	3	0
Erysipelas	0	0	1	0	1	0
Cerebro-spinal Meningitis	0	0	1	0	1	0

TASMANIA.

The following notifications have been received by the Department of Public Health, Tasmania, during the fortnight ending July 28, 1917:—

Disease.	Hobart. Cases.	Launceston. Cases.	Country. Cases.	Whole State. Cases.
Diphtheria	6	9	19	34
Pulmonary Tuberculosis	4	1	5	10
Enteric Fever	1	0	4	5
Scarlatina	0	0	1	1
Puerperal Fever	1	0	0	1

Hospitals.

ROYAL NORTH SHORE HOSPITAL OF SYDNEY.

The Annual Report of the Royal North Shore Hospital of Sydney for the year 1916 has been issued in book form. In addition to the actual report, there are several appendices, containing information in respect of donations, subscriptions and gifts, attendance of Directors, regulations and statistics. The inclusion of four charming photographs renders the booklet attractive.

It appears that 1,357 patients were admitted during the year. There were 88 patients in the Hospital on January 1, 1916, and 80 on December 31, 1916. Of the 1,259 patients discharged, 827 are said to have recovered, 356 to have been relieved, and 76 to have left the Hospital unrelieved. There were 106 deaths, of which 33 occurred within the first 48 hours after admission. The mortality works out at 7.76%, or, if the deaths occurring within 48 hours of admission be excluded, at 5.34%. The average number of patients in daily residence was 99.3, while the number of beds available was 132. The average cost of maintenance per patient was £87 0s. 9d.

In the Out-Patients' Departments 2,615 individuals obtained treatment.

During the course of the year, 60 patients suffering from scarlatina, 88 suffered from diphtheria, 28 from enteric fever, 12 from influenza, 2 from dysentery and one each from morbilli, erysipelas and parotitis, received treatment. Of these 193 patients, 156 were treated in the Infectious Wards. These wards are contained in a temporary wooden building, which was originally constructed to hold eight patients. It has been necessary to place as many as 23 patients in these wards at the same time, and on occasions four distinct infections were represented. In view of this unsatisfactory state of affairs, representations were made to the Government, with the result that the Minister of Public Health has stated that the sum of £1,000 has been allotted for the provision of extra accommodation. The building, as planned by the Government Architect, will contain 25 additional beds.

The case mortality among the diphtheria patients was 9.52%, and that among the enteric fever patients was 16.6%. There were no deaths from any of the other infective diseases.

Twenty-seven patients were admitted into the Hospital for various forms of tuberculosis. Of these, 13 were suffering from pulmonary tuberculosis. One patient was still under treatment at the end of the year, and of the remaining 12 five died. In addition to the in-door treatment of tuberculosis, 79 patients attended at the Anti-tuberculosis Dispensary. This number includes 27 patients already on the books at the beginning of the year, and 52 registered during the course of the year. Three of the patients were transferred to the wards of the Hospital. Six were sent to sanatoria, one was sent into the country, and 48 were still under treatment at the end of the year. The Medical Officer reports that 16 patients were relieved, and that five died. The trained nurse of the Department paid nearly 500 visits to the homes of the patients for the purpose of improving the hygienic conditions under which the patients were living.

It is announced that a special department for the treatment of diseases of the ear, nose and throat, will shortly be established. An Honorary Surgeon has already been appointed, and the services of an Honorary Assistant Surgeon, to deal with the out-patients' work, will shortly be requisitioned. The Board is making arrangements for the purchase of a modern X-ray plant, at the cost from £350 to £400. The sum of £150 has already been secured for this purpose.

The Board registers its appreciation of the valuable work conducted by the Honorary Medical Officer in charge of the Pathological Department.

No further steps have been taken to start a night clinic for venereal diseases.

The financial condition of the Hospital has given rise to concern. The income from all sources amounted to £8,241. In order to meet the expenses of the year, the overdraft, which was already close on £300, was increased to £1,193. This unfortunate state of affairs is largely due to an increase in price of commodities, and on this account is all the more disquieting, in view of the fact that prices will probably continue to rise. The subscriptions during the year have increased to a slight extent.

The resignation of Dr. Chisholm Ross from the office of Vice-President was received with regret. Mr. Frank George, a member of the Board of Directors, was appointed Vice-President, and Mrs. T. Wynne Watkins was appointed a Director. A suitable paragraph, referring to the lamented death of Mr. Thomas Burton Gaden, the Honorary Solicitor to the Hospital, has been inserted in the report.

The report terminates with a short chapter dealing with the work of the nursing staff, and some details of alterations in the equipment of the buildings.

BRITISH MEDICAL HALL COMPANY, LIMITED.

The following is the Directors' Report and Financial Statement of the British Medical Hall Company, Limited. The half-yearly meeting of shareholders was held on July 26, 1917, at the Lister Hall, Hindmarsh Square, Adelaide.

Directors' Report.

Ladies and Gentlemen,—

Your Directors submit their Report and Balance Sheet for the year ending July 10, 1917.

At the B.M.A. Building, all the rooms are let, with the exception of the basement; although, owing to the present economic stress, the rents are not equal to what they were in times of peace.

Your Directors greatly regret the small number of shares taken up; the only fresh ones allotted during the year being 20 £10 shares to Dr. W. A. Verco, at whose request the money was invested in the War Loan.

Out of the 250 members of the British Medical Association in the State of South Australia, only 88 hold shares in the company. Your Directors consider it incumbent on members who are not on active service, and particularly those living within the metropolitan area, to take at least one share in the company, so that by the time their colleagues return from the Front a large portion of the debt on the building may be wiped off.

BEN POULTON, Chairman.

J. ERNEST GOOD, Acting Hon. Secretary.

North Terrace, Adelaide,
July 18, 1917.

Profit and Loss Account for Year ended 10th July, 1917.

July 10, 1917.	£ s. d.	£ s. d.
To Maintenance of Buildings, Hindmarsh Square—		
Electric Light	13 7 0	
Rates and Taxes	66 8 8	
Advertising	7 13 6	
Duty Stamps	0 8 0	
Insurance — Furniture, Buildings, etc.	10 18 9	
Tuning Piano	1 1 0	
Newton, McLaren—Installation of New Lights	16 13 0	
Wood, Coal, etc.	5 2 8	
Plumber	3 0 6	
Telephone at Building	7 14 4	
Renewal of License of Hall	2 0 0	
Carpenter	0 12 6	
Sundries—Soap, Brushes, Soda, Polish, etc.	5 16 11	
		140 16 10
„ Caretaker's Wages		79 10 0
„ Commission—R. W. Swan & Co.		10 5 10
„ Austin & Menkins—Auditing and Preparing Income Tax Returns		6 6 0
„ Vardon & Sons, Ltd.—Printing		2 2 0
„ Commissioner of Taxes—Income Tax		3 1 1
„ Caretaker—Cleaning Brassplate		1 4 0
„ Office Expenses—		
Bank Charges for Keeping Account	£0 10 0	
Registrar of Company's Filing Fee	0 5 0	
Stamps, Stationery, Use of Telephone	2 0 0	
		2 15 0
„ Interest on Mortgage		116 10 0
„ Depreciation of Furniture		12 12 6
„ Preliminary Expenses Written Off		19 9 9
		£394 13 0

July 10, 1917.	£ s. d.	£ s. d.
By Balance, July 10, 1916		95 9 2
„ Rent Account—		
Tenants of Building	£264 16 0	
Lister Hall	22 2 6	
		286 18 6
„ Balance		12 5 4
		£394 13 0

To Balance (brought forward) £12 5 4

Balance Sheet as at 10th July, 1917.

LIABILITIES.

	£ s. d.	£ s. d.	£ s. d.
Capital Account—			
Preference Shares—			
500 at £10	5,000 0 0		
Less Unissued—205 at £10	2,050 0 0		
		2,950 0 0	
Ordinary Shares—200 at £10	2,000 0 0		
Less Unissued—56 at £10	560 0 0		
	1,440 0 0		
Less Amount Unpaid	100 0 0		
		1,340 0 0	
			4,290 0 0
Executor, Trustee & Agency Co., Ltd.,—Mortgage on Building			2,200 0 0
			£6,490 0 0

ASSETS.

	£ s. d.	£ s. d.
Buildings and Property, Hindmarsh Square	5,500 0 0	
Renovations and Alterations	390 5 3	
		5,890 5 3
Furniture and Fittings	252 10 1	
Less– Depreciation	12 12 6	
		239 17 7
Preliminary Expenses	58 9 3	
Less Written Off	19 9 9	
		38 19 6
Bank of Adelaide		108 12 4
War Loan Bonds		200 0 0
Profit and Loss Account—Balance		12 5 4
		£6,490 0 0

We have audited the books of the British Medical Hall Co., Ltd., for the 12 months ended July 10, 1917, and certify that the above Balance Sheet is a correct abstract of same, and shows the true position of the company at the date named.

July 14, 1917. AUSTIN & MENKINS, Auditors.

Special Correspondence.

(By Our Special Correspondent.)

LONDON LETTER.

A New Non-Poisonous Antiseptic.

At a meeting of the Court of the Middlesex Hospital, held on February 22, 1917, an interesting statement was made by Dr. C. H. Browning, Director of the Bland-Sutton Institute, on the new antiseptic, flavine. He said that the Institute had discovered in flavine, which is a yellow dye belonging to the acridine series, a valuable non-poisonous anti-septic. It is inimical to the microbes which infect wounds, and it can be applied in powerful solution to the living tissues without harm to the cells, and without being diminished in its activity by serous secretions. It seems likely to prove one of the most potent accessory weapons against wound infection, and is, therefore, a discovery of no small importance. Before this war, all the potent antiseptics were also highly poisonous to the living body, and many of the most distinguished surgeons longed eagerly for an ideal antiseptic which should kill the bacteria without harming the tissues. It is claimed for flavine that it fulfils these conditions. Its possibilities are not exhausted by its value in surgery; investigations in regard to its usefulness in tuberculosis and other infective diseases, have been inaugurated, and are not without hopeful promise. Dr. Browning appealed for an endowment of the Research Fund of the Bland-Sutton Institute to carry on these researches. It was impossible to contribute to the cost out of the Hospital funds, hence the appeal to the public. The fund is to form a "Melhado Memorial," in remembrance of the late secretary of the hospital.

The Control of Venereal Diseases.

The National Council for combating venereal diseases has issued an interim report. Recommendations submitted to the Home Secretary on the subject of prospective legislation include the suppression of advertisements by quacks, and make the transmission of disease by a person aware of his infectious condition a criminal offence. Special conferences have been held with representatives of the British Medical Association, the Pharmaceutical Society, the panel doctors, women police and women patrols, and a body which advocates the immediate adoption of measures for compulsory notification. Lectures to troops are being delivered by qualified medical men. This work recently has been extended at the express desire of the Director-General of the Army Medical Service, to include a lecture to each new class of cadets at all the Officer Cadet Schools, so that every new officer may receive the information necessary to enable him to instruct the men under his command. Courses of lectures have also been arranged for women social workers and the teachers in schools. The Council is preparing to undertake a still more widespread propaganda, and treatment centres will be opened in Greater London and many counties throughout the country early in the year.

In the course of his reply to a public deputation recently received by Lord Rhondda at the offices of the Local Government Board, he said that his Department was fully alive to the importance of the great question of venereal disease control. It was more than a national question, it was an imperial one, and he considered it the most urgent of the matters with which the Local Government Board had to deal, as it entailed not only the health of the people at the present time, but also that of future generations. We needed, he said, to bring up a healthy race in the future, and we should have all we could do to make up for the ravages and losses resulting from the war. He was unable to define on behalf of the Government any special form of legislation, but he was able to assure them that legislation would be brought in by one department or another with very little delay. There was complete accord between the local Government Board and the medical profession, and the former were prepared to find 75% of the cost. He believed the National Council for Combating Venereal Diseases would be able to do much by assisting to create the atmosphere required for legislation. He was greatly in favour of utilizing the local authorities more and more, and he was convinced they would be most willing to render the help needed. He wanted to make that Department the great health department of the country,

Sir Hamar Greenwood thanked Lord Rhondda for the inspiring reception he had given the deputation. This special subject, he said, was of additional importance now on account of the effect it had upon the Army and Navy, there always being a considerable number of men rendered inefficient from these diseases, and others lost to the country's service through inadequate treatment, owing to ignorance or timidity.

The Hunterian Oration.

The Hunterian Oration was delivered on February 14, 1917, at the Royal College of Surgeons of England, by Sir George H. Makins. He took as his subject, "The Influence exerted by the Military Experience of John Hunter on Himself and the Military Surgeon of To-day." In 1760 Hunter went as surgeon on the staff to Belleisle and Portugal, and passed two years on active service; in 1790 he was appointed Inspector-General of Hospitals, and Surgeon-General of the Army. In examining Hunter's two lectures on "The Treatment of Gunshot Wounds," Sir George Makins' general conclusion was that the divergence of Hunter's views from those which guide the military surgeon of to-day is not very great, "for although some of the most modern surgical practice has been spoken of as a revolution, yet the general tendency—illustrated also in the present war—has rather been in the direction of a reaction." The chief point on which Hunter and his immediate successors apparently differ most is his avoidance whenever possible of primary amputation; his methods in the treatment of gunshot wounds were guided by his views on the pathology of the healing of wounds, and the methods were necessarily limited owing to his ignorance of the part played by infection as a cause of inflammation. The lecturer also spoke of the sobering effect his war experiences had upon Hunter, and of the opportunities they gave him, not only of gaining worldly wisdom and a knowledge of men, but also of valuable professional investigations.

Correspondence.

MILK AND MILK FOODS.

Sir,—In the July 21st number of the *Medical Journal of Australia* there appears an article on "Milk and Milk Foods," to which I am sure the majority of members of the profession will take serious exception, and which will do a great deal of harm in that the public will be confirmed in their erroneous ideas that the dried and patent foods are the best articles upon which to rear their children. The article certainly states that "cow's milk is the best food for infants," but it very much qualifies this by stating that "a good reliable milk may be difficult to obtain, and when obtainable may be expensive." Surely fresh milk is always cheaper than a prepared article.

Not one word of warning is used against the continued and prolonged use of these dead foods owing to the lack of vitamines. It has been proved conclusively that all the dried milks and patent food preparations must be and are deprived of the living principles or vitamines of human, cows' or goats' milk, and so the endeavour to rear children exclusively upon these foods is to expose them to the very serious danger of infantile scurvy. The reason why more children are not affected with this disease, although reared on these artificial foods, being the fact that their diet is augmented by "pieces" of fresh food, fruit, etc., from their mother's plate. Failing the mother's milk, a child should be fed upon cows' milk, with citrate of soda added to it; if curds appear in the motions, or the child vomits, then a little water should be added. None of the dried foods, patent foods, farinaceous and otherwise, should ever be used if cows' milk can be procured.

Yours, etc.,

12 North Terrace, Adelaide, H. SWIFT.
July 31, 1917.

[We invite our readers to express their views on this important subject.]

Books Received.

A MANUAL OF PRACTICAL X-RAY WORK, by David Arthur, M.D., D.P.H., and John Muir, B.Sc., M.B., etc.; Second and Revised Edition; 1917. London: William Heinemann; Demy 8vo., pp. 351, with 185 illustrations. Price, 12s. 6d. net.

WAR-SHOCK. THE PSYCHO-NEUROSES IN WAR PSYCHOLOGY AND TREATMENT, by M. D. Eder, B.Sc., M.R.C.S., L.R.C.P.; 1917. London: William Heinemann; Crown 8vo., pp. 154. Price, 5s. net.

MIDWIFERY, by Ten Teachers, under the Direction of Comyns Berkeley, MA., M.D., etc.; Edited by Comyns Berkeley, H. Russell Andrews, J. S. Fairbairn; 1917. London: Edward Arnold; Royal 8vo., pp. 736. Price, 18s. net.

CONGENITAL WORD-BLINDNESS, by James Hinshelwood, M.A., M.D., etc.; 1917. London: H. K. Lewis & Co., Ltd.; Crown 8vo., pp. 112. Price, 4s. net.

SHELL-SHOCK AND ITS LESSONS, by G. Elliot Smith, M.A., M.D., etc., and T. H. Pear, B.Sc.; 1917. Manchester: The University Press; London: Longmans, Green & Co.; Crown 8vo., pp. 135. Price, 2s. 6d. net.

DANGERS IN NECK-WEAR, by Walter G. Walford, M.D.; 1917. London: H. K. Lewis & Co., Ltd.; Crown 8vo., pp. 171. Price, 4s. net.

MALINGERING: OR THE SIMULATION OF DISEASE, by A. Bassett Jones, M.B., and Llewellyn J. Llewellyn, M.B., with a Chapter on Malingering in Relation to the Eye by W. M. Beaumont; 1917. London: William Heinemann; Royal 8vo., pp. 708. Price, 25s. net.

THE TREATMENT OF INFECTED WOUNDS, by A. Carrel and G. Dehelly; Translation by Herbert Child, with Introduction by Sir Anthony A. Bowlby; 1917. London: Baillière, Tindall & Cox; Crown 8vo., pp. 238, illustrated. Price, 5s. net.

THE TREATMENT OF TUBERCULOSIS BY MEANS OF SPENGLER'S IMMUNE BODIES (I.K. THERAPY), by Niven Robertson, M.D., D.P.H.; 1917. London: Baillière, Tindall & Cox; Crown 8vo., pp. 152, with two charts. Price, 5s. net.

BAILLIERE'S POPULAR ATLAS OF THE ANATOMY AND PHYSIOLOGY OF THE FEMALE HUMAN BODY, WITH DESCRIPTIVE TEXT, by Hubert E. J. Biss, M.A., M.D.; Third Edition; 1917. London: Baillière, Tindall & Cox; Plates by Georges M. Dupuy, M.D. Price, 4s. net.

Proceedings of the Australasian Medical Boards.

QUEENSLAND.

Through a typographical error, an entry given last week in the list of medical practitioners registered in accordance with the provisions of the "Medical Act of 1867" (Queensland), was incorrectly printed. The entry should read as follows:—

Lavery, John Anthony E. A., Taroom, L.R.C.P. and L.R.C.S. Edin., L.F.P.S. Glas., L.M. 1895.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xix.

Ararat Hospital and Benevolent Asylum, Resident Medical Officer.

Richmond District Hospital, North Queensland, Medical Officer.

Department of Trade and Customs, Quarantine Service, Quarantine Officer.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
TASMANIA. (Hon. Sec., Bellerive, Tasmania.)	Medical Officers in all State-aided Hospitals in Tasmania.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	Brunswick Medical Institute. Bendigo Medical Institute. Prahran United F.S. Dispensary. Australian Prudential Association Proprietary, Limited. National Provident Association. Life Insurance Company of Australia, Limited. Mutual National Provident Club.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Medical Officers to the Selwyn Hospital, North Queensland. Brisbane United Friendly Society Institute. Warwick Hospital.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	The F.S. Medical Assoc., Incorp., Adelaide.
WESTERN AUSTRALIA. (Hon. Sec., Health Department, Perth.)	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United F.S. Dispensary. Canterbury United F.S. Dispensary. Leichhardt and Petersham Dispensary. M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney. Marrickville United F.S. Dispensary. N.S.W. Ambulance Association and Transport Brigade. North Sydney United F.S. People's Prudential Benefit Society. Phœnix Mutual Provident Society. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Parramatta, Penrith, Auburn and Lidcombe. Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, N.Z.

Diary for the Month.

Aug. 14.—Tas. Branch, B.M.A., Council and Branch.
Aug. 14.—N.S.W. Branch B.M.A., Ethics Committee.
Aug. 15.—W. Aust. Branch, B.M.A., Branch.
Aug. 15.—Western Suburbs Med. Assoc. (N.S.W.).
Aug. 16.—North Eastern Med. Assoc. (N.S.W.).
Aug. 16—City Med. Assoc. (N.S.W.).
Aug. 21.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Aug. 24.—Q. Branch, B.M.A., Council.
Aug. 28.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Aug. 29.—Vic. Branch, B.M.A., Council.
Aug. 30.—S. Aust. Branch, B.M.A., Branch.
Aug. 31.—N.S.W. Branch, B.M.A., Branch (Ordinary).
Sept. 5.—Vic. Branch, B.M.A., Branch.
Sept. 5.—Central Southern Med. Assoc. (N.S.W.).
Sept. 7.—Q. Branch, B.M.A., Branch.
Sept. 11.—Tas. Branch, B.M.A., Council and Branch.
Sept. 11.—N.S.W. Branch, B.M.A., Ethics Committee.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.